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JOURNAL
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Volume 13 JANUARY, 1938 Number 1

Health and Medical Education*

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In appointing me to the presidency of the Association of American Medical Colleges, I feel that you have greatly honored not only me personally, but the University of Toronto which I represent and the Dominion of Canada of which I am a native born citizen. It is striking evidence of the genuinely international character of this Association, the objective of which is the betterment of medical education on this continent. May the same harmonious cooperation in striving to attain this worthy aim which has existed between our two countries in the past long continue in the future.

Since I arrived here by motor about a week ago, I have been struck by seeing in your papers and on the streets the slogan "Buy Health and Happiness" because, by a strange coincidence, I have been thinking almost constantly about health in preparing this address.

The public tend to regard doctors of medicine as a guild or cult who practice on them in accordance with certain theories of disease. They believe that the medical man's methods of treatment are governed by these theories and that they must adhere to them in order to avoid censure by some ruling body of the medical profession. The public think, in one instance, of doctors as "allopaths" in contradistinction to "homeopaths"; in another, as limited to treatment by drugs or operations in contrast with those who apply manipulation or other form of physical treatment; and in another, as dealing solely with the material body and having no concern with the mind and spirit existing in it. The medical profession itself is to some extent accountable for this attitude of the public, from the type of publicity given to their discoveries of medical science. Antitoxin is the treatment for diphtheria; insulin for diabetes; operation for appendicitis, and so on with many other specific remedies. The public assumes that the doctor has a special remedy for each disease. If a person is able to diagnose his own disability, he consults the doctor who is known to be a specialist for his kind of trouble. He is critical of the medical profession because it has not succeeded in finding cure-alls for such common diseases as arthritis and cancer.

The fact that each individual has a body and mind of his own, which give him uniqueness in structure and function and individuality in character and per-

*Read at the Forty-eighth Annual Meeting of the Association of American Medical Colleges, held in San Francisco, California, October 25-27, 1937.

sonality, has not yet been realized adequately. If a person is suffering from some disease for which a specific treatment is known, the doctor not only prescribes this treatment in accordance with the knowledge of its application in the treatment of this disease, but also in relation to the particular personal characteristics of the individual in whom the disease is producing its effects. In other words, the doctor treats the person—Mr. Jones or Mrs. Smith or Baby Brown, as the case may be. It is important for the public to recognize this fact, because, in our present state of knowledge, the number of diseases for which a scientific specific treatment is known forms only a small proportion of the conditions the doctor is called on to treat. As it is, the person and not the disease he is treating, the doctor uses any and every form of treatment, which, in his opinion may be indicated for the relief and cure of his patient. He provides his services to his patient to the best of his ability, striving always to accomplish the cure of the patient's ailment, but often having to console himself by only ameliorating the symptoms until the end comes. Not infrequently the services he renders to the patient necessitate, in addition, the devotion of care, thought and worry in managing the wife or the husband of the afflicted. The doctor must treat people, not diseases, and use every means possible at his disposal in order to attain his results. General practice is based on the personal relationship between the doctor and his patient. The doctor's personality and attitude may have far more influence in the recovery of his patient than the particular treatment he prescribes.

When a person consults a doctor, he does so because he thinks he has some disease. He expects the doctor to identify this enemy to his well-being and then to fight and destroy the intruder. The patient assumes that he has turned over to the doctor the onus of disposing of this opponent to him or, in other words, that the doctor has now taken on the fight with the disease as a substitute for him. If the person recovers, he thinks the doctor has won the fight. If, on the other hand, the disease is winning out despite the efforts of this doctor and all the confreres he has brought to his assistance, then he attributes the failure to the lack of ability or skill of the medical profession to fight this disease from which he is suffering. If the doctors do not seem to be able to overcome the disease, the patient often turns to some other type of treatment, of which he has heard from his friends or has seen advertised in the newspapers, in the hope that a victor over the disease may be found.

This attitude of the public, of the doctor fighting the disease, is so frequently present that steps must be taken to correct it. It is not the doctor who fights the disease, it is the patient, the person in whom the disease occurs, who has to overcome its effects. The doctor is the auxiliary force who is brought in to help the person win the battle. He gives his services to the patient to the best of his ability, but he can never substitute for him. His education and training have provided him with a knowledge of the structure and functions of the human being and of the changes in these produced by disease, of the theories and causes of diseases, and of the means of preventing and curing them. With this knowledge he can frequently enable the person to gain a victory over his assailant,

but, at times, he is unsuccessful. In order to provide medical services efficiently, the doctor must know the human being both from a scientific standpoint and from personal experience, and he must know the nature of diseases and how they effect the human being. It is this knowledge that the doctor acquires during his medical education at the university and throughout his life by experience in practice. In no field of activity is the saying "the study of mankind is man" more applicable than in the practice of medicine.

If the study of man is so essential for the doctor, and if the doctor treats the patient and not the disease, is our present system of medical education the best that can be devised to fulfill this purpose? In the clinical years, the student is unquestionably brought into intimate contact with man when he is sick, and he has many opportunities to learn a great deal about him when he has been affected by some disease, but the question may be asked "When does he receive instruction on man when he is not sick or, in other words, when he is healthy?" Does a course in anatomy teach a student to know the characteristics of health in a man's body? Does a course in physiology enable the student to recognize that a man's body functions are working in such a manner that he is known to be healthy? Does the student learn to examine a person-as-a-whole and determine whether or not he is healthy in mind and body? In what course is the student educated in the health of a person in the same manner that he is taught disease of a person in the hospital? Has the student been made to realize that health is something more than the absence of disease; that it is a state in which a person lives and enjoys life, just as certainly as a state of disease is one from which he may suffer and die?

An unqualified affirmative answer cannot be given to any of these questions. The reason for this is not difficult to discover. In my opinion it is to be found in the standpoint from which medical education has been approached. Health as a positive state of the human being has not been recognized as an objective in medical education and in consequence no concrete instruction has been given in it. It has been assumed that, having received courses in anatomy and physiology, the student, knowing how a normal man is made and how his body functions, will be capable of recognizing when health exists in a person. He has not been taught either to examine a person for the definite purpose of finding out whether a state of health is or is not present. He has studied the fundamental subjects as preparation for their use at a later stage in the course for the purpose of determining whether a person is diseased or not. They are preclinical, something that comes before the essential part—i.e. before he meets patients. They are not an entity in themselves with a clear cut objective to be attained on the completion of their study. The student considers them as preliminaries to be gone through and looks forward to his contact with patients, which he thought he was going to learn about immediately he began his medical course. The student considers that the medical course really starts when he sees and examines a human being with a personality and character. Were the courses in the fundamental sciences conducted with the objective in view of a knowledge of well

man and of the state of his existence known as health, the attainment of which would necessitate his observing and examining living persons purposefully, a big step in advance would be made toward overcoming this obvious defect in our present system of medical education.

The importance of the student familiarizing himself with the human organism in health as well as disease, has been advocated in all the recent important reports on medical education made in this country and Great Britain and by the Health Organization of the League of Nations, but in spite of these recommendations, medical colleges have not made any attempt to introduce this idea into their medical courses. An understanding of the well man and the state of his existence known as health is really the fundamental knowledge needed by a doctor in order to understand the sick man and the diseases from which he may suffer. As a matter of fact, a knowledge of healthy man has been assumed to be present in the student's mind but, that such is not the case, is apparent to clinicians as soon as the student begins to examine patients. They find it necessary to spend several weeks in instructing him at the beginning of the clinical courses in the signs and symptoms of a healthy person in order that he may know the manifestations of health and have a basic standard with which to compare the evidence of sickness.

In what manner might this oversight of such a fundamental element of a medical student's education be remedied? Chiefly by a change in the point of view from which preclinical subjects are taught. If the objective of these subjects, to be attained at the end of the second year, were a knowledge of the well man and health, instead of a knowledge of anatomy, physiology and biochemistry, then the student would acquire the right type of knowledge to prepare him for the study of sick man and disease. Just as it is recognized as essential for the student to see and examine sick persons in his clinical years in order to learn the diagnosis and treatment of disease, so should it be accepted as necessary for him to see and examine well persons during the preclinical years in order to learn how to recognize health. Just as it is essential for him to know the theories of disease and the changes that occur in the body as a result of disease, which he learns in pathology, pathologic physiology and pathologic chemistry, in order to interpret intelligently the signs and symptoms of disease in the sick person, so should he be taught the theories of health and the characteristic changes that occur in the body of the well individual during the courses in anatomy, physiology, biochemistry and psychobiology, so that he will be capable of interpreting intelligently the signs and symptoms indicative of health. Just as the standard methods of inspection, palpation, percussion, auscultation and test of functions used in physical examination are taught to the student on patients in the clinical years, so might these same methods of examination be taught to the student on healthy persons in the preclinical years. Just as the student is instructed in the methods of making a psychiatric examination for the purpose of diagnosing whether a person is mentally unbalanced or not, so should he be taught the methods of conducting a personality and psychobiologic examination in order to assess mental health.

The study of man as a common aim for the preclinical and clinical divisions of the course would result in similar principles being taught in both parts of the course and coordination of the fundamental sciences and clinical courses would become more feasible. The present limited objective of sick man and disease on which the whole attention of student and teacher has been focused, would be broadened and enlarged by the inclusion of well man and health. The endeavor in each of the courses to inculcate into the mind of the student a scientific outlook and point of view would in no way be interfered with, for instruction and investigation concerning health can be pursued in the same scientific spirit, as these procedures are now carried out in relation to the study of disease. An opportunity for the student to come into personal contact with well persons from the inception of his course would have the advantage of making him realize that a knowledge of the human being, and not subjects of a course is his objective, and at the same time, would enable him to appreciate the importance of the personal relationship which exists between doctor and patient.

A university course devised to give an education on a field of knowledge concerned with Man in relation to the state of his existence ranging from perfect health, on the one hand, to serious illness and death, on the other, needs some comprehensive term to describe it accurately. Medicine has the implication of the limitation of the extent of a course to the care and treatment of the sick, and also has the confusing disadvantage of being given other meanings in accordance with the group using it, the medical faculty applying it to the department and subject of medicine in its relation to surgery, obstetrics, etc., and the laity to the drugs taken by them for their disease. As a form of practice the title "medicine" has too long and honorable a tradition to suggest any other name, but in universities, where the names of courses give a general idea of the branch of knowledge covered, such as agricultural science, veterinary science, biological and medical sciences, etc., some descriptive term analagous to these might be adopted, which would convey to students the comprehensive nature of this new objective. For such a purpose, "human science" is suggested; "human" to indicate its relation to the human being and "science" its place among the other science courses of the university. Even if such a name only impresses the student with the wider outlook and change in point of view of the course, a useful purpose would be served.

PREMEDICAL EDUCATION

The adoption of this new and broader point of view in the medical curriculum should result in a revision of the premedical requirements to be fulfilled by the student in his college education. Up to the present, chief emphasis has been placed on his education in the basic sciences—biology, chemistry and physics—and but little consideration has been given to his background in the humanities. Although a course, with a knowledge of man in health and in disease as its objective, would still require a sound foundation in these sciences, a greater measure of cultural background in the humanities than is required at

present, would become necessary. In other words, a corresponding broadening of the objectives of premedical education to that proposed in medical education would be needed. The intensively scientific character of the present prerequisites would be adjusted in its relation to the more humanitarian aspect of general education.

The ability to grasp principles, a knowledge of the relations of man to nature and a knowledge of the relations of man to man have been proposed by President Hutchins of the University of Chicago as the objectives of general education to prepare a student for university education. In our present premedical requirements, the second of these, the relations of man to nature (biology, chemistry and physics) stand out above all other preliminary training as though this were the only essential needed. The provision of more knowledge of the relations of man to man is now advocated in preparation for this broader type of education for a doctor. Less science and more of those subjects which give a background in the cultural, social, economic and political aspects of the life of the human race are needed to round out the education of a student for a medical career. "The physician is at the bottom a human being," writes Nicholas Murray Butler, "and will be the better physician as he is the larger and richer and riper human being. The power of personality, the power of human sympathy and understanding and contact are something without which mere scientific knowledge and scientific skill must always be relatively helpless in dealing with human beings."

HEALTH AND GENERAL EDUCATION

The place that health education should occupy in general education has yet to be determined. If health is to be taught to the rising generations, surely the medical profession should assume a definite part of the responsibility for their instruction. Organized health education is as yet in its incipient stages and largely confined to elementary schools. If it is a sound policy to educate school children in matters of health, why should it not be even more important to provide health education in the secondary schools, the universities and to the people at large? The medical profession should be leaders in the development of a general scheme of health education for all. In order that medical profession may be qualified to assume this leadership we must have a sound knowledge of healthy man and must study and investigate all the many factors in the human being that contribute to this state of his existence. The doctor of the future must be educated to assume the responsibility for health diagnosis, health guidance and health treatment. He must be educated in health not only to undertake these responsibilities for well people but also in order that he may be more efficient in practising his profession on the sick. A better understanding of health will make him a better doctor.

Cultivation of Health in Relation to the Medical Curriculum*

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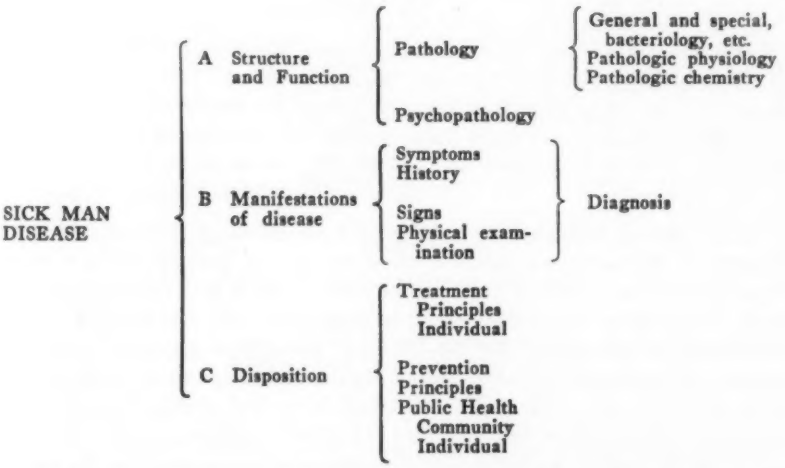
The cultivation of health was included as one of the objectives of the medical curriculum in the amended constitution of the Association of American Medical Colleges last year. In what manner should the conception of health in a person be incorporated into the medical course?

Might an answer to this question be found by examining the methods by which we endeavor to provide the student with his conceptions of disease? Might we teach the student about health and man when he is well, in the same manner as we now teach him about disease and man when he is sick? What is the general plan used for giving the student a knowledge of disease and its effects on the patient?

Plate I.



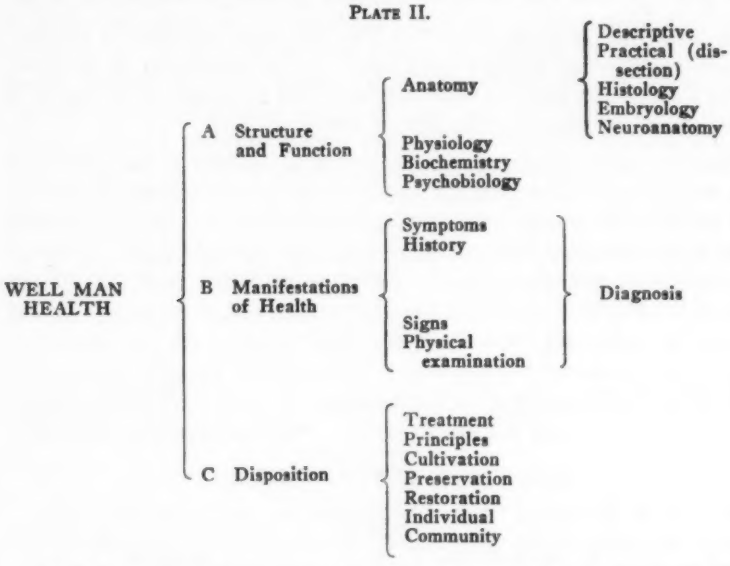
Instruction is given on the changes in structure and function produced by disease in the human being and on the theories of disease in the courses in pathology, bacteriology, pathologic chemistry, pathologic physiology and psychopathology.

Instruction is given on the ways in which disease manifests itself in the sick person in all the clinical courses. The methods used consist of: (1) A study of the symptoms of disease in the patient as elicited from the history of the case;

*Read at the Forty-eighth Annual Meeting of the Association of American Medical Colleges, held in San Francisco, California, October 25-27, 1937.

(2) a study of the signs present as found by making a physical examination; (3) a study of the process of arriving at a diagnosis of the disease from which the patient is suffering. Instruction is given on the disposition made of the sick person from the standpoint of treatment and on the principles governing the prevention of disease. It is suggested that the same general plan might be adopted for the instruction of the student on well man and health.

PLATE II.



In the courses in anatomy, physiology and psychobiology, instruction would be given on the evidences of health in the structures and functions of the human being. Instruction would be given on the ways in which health manifests itself in the well person. The student would be taught: (1) The symptoms of health in a person as ascertained from the history of his actions, sensations, emotions and sense of well being; (2) the signs of health in all the parts of the body and in the individual-as-a-whole as discovered from a physical examination; (3) the process of making a diagnosis of the state of health of person examined. Instruction would be given on the disposition of the person so as to provide for the maintenance and cultivation of his health.

By the adoption of this proposal, the course for the education of a doctor would consist in providing the student with, first, a knowledge of well man and health and, second, a knowledge of sick man and disease. The whole course would be focused on man and the state of his existence. It might be thought of broadly as a course in human science. (Plate III.)

The chief changes in the courses in anatomy and physiology would be the introduction of a new point of view, that of health, as the result of which appropriate rearrangement of the instruction would be necessary. In anatomy, after

the student has completed the study of each division of the body, such as the shoulder region, the foot, the neck, etc., he would be taught the methods of making a physical examination on a healthy person (a fellow student, for example), and the features characteristic of health pointed out to him. This instruction would be conducted by clinical instructors. The student would learn the methods of inspection, palpation, percussion, auscultation and the testing of functions in the same manner as he now does in the course in physical diag-

PLATE III.

MAN
HUMAN SCIENCE
- Well Man
  Health
  - A Structure
    Function
  - B Manifestations
    of health
  - C Disposition
- Sick Man
  Disease
  - A Structure
    Function
  - B Manifestations
    of disease
  - C Disposition

nosis. In carrying out each examination he would have a definite purpose in view, namely, that of interpreting the observations he makes in terms of the degree of health present and of making a health diagnosis of the part as a whole. In doing this, he would have to synthesize his whole knowledge of the structures of the part; that is to say, put together all that which he has taken apart during his dissection and laboratory work.

PLATE IV.

PHYSICAL EXAMINATION OF THE FOOT

A	Inspection	
	1. Color	Skin; visible veins.
	2. Form	Contour of foot; arching; direction of toes; muscular development; appearance of joints and tendons.
	3. Movements	Active movements of flexion, extension, abduction, adduction, etc.
B	Palpation	
	1. Color	Temperature.
	2. Form	Bones and bony points palpable; their relation to one another.
		Joint levels; passive movements of all joints.
		Sensation.
C	Tests of Function	
		Standing on both feet; on one foot.
		Standing on toes; toes of one foot.
		Walking; running; jumping.

In physiology, after the student has covered the knowledge of a certain part of a body system, such as the cardiovascular, the respiratory, etc., he would be instructed in the methods of physical examination and the characteristic evidences of health brought to his attention. Clinicians from the department of medicine would obviously act as demonstrators. (Plate V.)

The same type of procedure would be followed in the instruction on the respiratory and other systems.

Psychobiology: It has now been recognized by medical educators that the student does not obtain a complete knowledge of the human being in the courses of anatomy and physiology, for those qualities of man which give him personality are not included in these courses. The course in psychobiology has been added to the curriculum to overcome this omission and to teach the student this biologic function of man known as personality. Instruction is given on the basic

PLATE V.

EXAMINATION OF HEART IN HEALTH

Inspection
Shape of precordium; apex pulsation; other pulsations.

Palpation
Position of apex beat; character of cardiac impulse; other palpable impulse.

Percussion
Heart borders; define the area of cardiac dullness.

Auscultation
Presence and quality of the two heart sounds at the mitral, pulmonary, aortic and tricuspid areas.
Rate and rhythm.
Presence of adventitious sounds.

Peripheral Circulation
Color and temperature of hands and feet.
Pulse: rate, volume, vessel wall.
Blood pressure.

traits of personality, its integration and growth at various age levels throughout life, and its relation to the life and health of the individual. The intelligence, appetites and emotions of a person are functions of personality which concern the individual-as-a-whole and which have an effect on the operation of his various body mechanisms in determining his sense of well being or feeling of sickness. Efforts are being made to organize the best critical common sense in such a form that it may be used by the student in taking a history of a person from this psychobiologic aspect and in making an examination of him for the purpose of assessing his personality.

In the conduct of the course in psychobiology, the factual material should be presented to the student in such a way that it makes the same demand for observation of facts, for experiment, and for theory about the facts as is made in the physiologic and biologic sciences.

Health diagnosis: After the student has completed the courses in anatomy, physiology and psychobiology, he should have sufficient knowledge to undertake the complete examination of a person-as-a-whole for the purpose of making a diagnosis of the state of his health. His approach to such a problem would be identical with the one in use for the diagnosis of disease. He would be taught the method of taking a general history of the health of the individual-as-a-whole, including an inquiry into the functions of his main structures and body systems.

He would be instructed in the methods of physical examination of an individual, gathering together all the methods he will already have learned in these three main courses and applying them to the whole man. A synthesis and correlation of all his ideas must be carried out in order to do this successfully. On the basis of the data elicited from the history and physical examination, he would make a diagnosis of the degree of physical and mental health present in the individual.

Research in health: Although much research has been undertaken in the medical sciences which has an ultimate bearing on the health of the human being, most of it has reference to a particular function or organ or system of the body and not to the individual-as-a-whole. The amount of accurate scientific knowledge of the common activities of life and their relation to health is still very limited. Time does not permit more than a mere mention of a few outstanding conditions of life that might be investigated in order to ascertain their relation to the health of the human being: The normal ranges of health; growth and age changes; heredity and eugenics; fatigue, rest, sleep, physical activity; mental work, study, clerical work, physical labor, worry; nutrition, obesity, thinness, diet in relation to body structures, such as the muscles, bones, joints, nerves, bloodvessels; activities of the alimentary tract, of the biliary tract, of the urinary tract, of the genital system; endocrines and vitamins; climatic conditions, air conditioning; environments of various sorts, physical, social and mental; housing; clothing; the relation of emotions to health. If the problems of applied human biology were approached from a broader viewpoint, with the object of securing a better understanding of man and his state of health, the services which the medical profession could render to the public would be increased very much.

CONCLUSIONS

(1) The objective of the first part of the medical course should be the attainment of a knowledge of man in a state of health.

(2) A knowledge of healthy man might be acquired in the same manner as a knowledge of sick man.

(3) The diagnosis of the state of health in man should be taught as a preparation for the diagnosis of disease.

(4) The undertaking of research into conditions influencing the health of the human being should be increased greatly.

DISCUSSION

DR. EBEN J. CAREY (Marquette University, Milwaukee, Wis.): Health education is a major function of the medical profession, therefore, it should have an important rôle in the preparation of the physician for general practice. One of the objectives of the medical curriculum should be health education. The medical student should have ample opportunity to evaluate the degree of health in apparently healthy individuals by a study of living anatomy and physiology in the human. No fundamental change in the form of the medical curriculum is necessary. It only requires changes in the point of view of teachers in order that the content of the courses of study stresses this field of health and prevention of disease.

It is not enough, however, that the physician is trained to detect the sick and the well. He should be all that the original term "doctor" implies, namely, teacher of the public in reference to health and disease. No one should be better equipped to act as an educator in the field of health than the family physician. Mass control of communicable diseases requires governmental police powers. Many diseases, however, are noncontagious and will be controlled only to the extent of the intelligence of each individual layman. The health education of the individual in these private personal matters is a function of the private physician. There is no doubt, therefore, in regard to the importance of stressing the subject of health in the medical curriculum more than it has been up to the present time.

It is well to define what is meant by health. Health is subjective and cannot be demonstrated in objective form. Many physical factors, however, contribute to health. Such objective things as the science of embryology, anatomy, physiology, pathology and the causes of ill-health may be used in the visual education, by the exhibit method, not only of medical students but of the layman as is done in the Wellcome Museum of London and the Deutsches Museum of Dresden, Germany.

Just recently there was published a good book by Bauer and Hull of the American Medical Association entitled "Health Education of the Public." In it there is a definition of health as follows: "Health is a state of feeling of well being in body, mind and spirit, and a sense of reserve power. It is based on the normal functioning of the tissues and organs. It is also dependent upon a practical knowledge of the principles of healthful living, a harmonious adjustment of the physical and psychological environment, together with an attitude as regards health, not as an end in itself, but as a means to habitual health as measured in constructive service to society."

Last year the University of Wisconsin at Madison and Marquette University in Milwaukee were requested to aid in the function of not only the scientific education of the physician during his annual meetings, but also during the periodic meetings of the county medical societies and the councillor districts. The two universities have cooperated in this particular work. As a consequence of this education of the doctor based on preventive medicine, the problem of the health education of the public also was considered. From the 10th to the 17th of September, 1937, a health exhibit was prepared for the public in the Hall of Health, Milwaukee Auditorium, and more than 100,000 people attended it during that particular week of the annual meeting of the State Medical Society of Wisconsin.

The medical school does have a direct obligation to the public as well as to the profession and to the medical student. Some of us feel as though it is inferior to our function, but the greatest scientists in Great Britain during the last one hundred years, beginning with Michael Faraday, and men in medical science, such as Sir Arthur Keith and Sir Archibald V. Hill, have stooped to conquer by annually coming in contact with the public. These yearly Christmas lectures are prepared, delivered and demonstrated by some outstanding British scientist with the point of view of a juvenile audience. The best seats are reserved for children. I believe every medical student and doctor could read profitably the "Engines of the Human Body," by Sir Arthur Keith and "Living Machinery," by Sir Archibald V. Hill. These two books on human anatomy and physiology demonstrate two methods of presenting medical science to the public.

Probably the reason the majority of us have evaded this obligation to the medical student and the public is due to the inertia of (1) partly changing our point of view and methods in teaching by including living anatomy and physiology of the human, and (2) preparing objective exhibits on man, medical science and health for the education of both the medical student and the public.

Dr. Maurice H. Rees (University of Colorado): In the teaching of physical diagnosis and history taking there has been entirely too much of a tendency to consider the

patient or the human being as an animal, and to ignore the personality side. The personality of the patient makes up such a major portion of the consideration of any disease condition that it certainly should not be neglected.

In our own institution in Colorado, we have attempted to bridge this over by what we call a liaison department of psychiatry, a department not in the psychopathic hospital but in the general hospital, studying patients who enter the hospital and considering the personality problems of those patients. We are presenting this to our students as a part they should consider in taking the history of any patient or in making a physical examination on any group of patients.

DR. E. STANLEY RYERSON: I thank Dr. Carey and Dr. Rees for their kind remarks with reference to bringing this idea before the Association. I feel it is certainly opportune, and I hope such a new conception of our responsibilities may be given very serious thought.

Community Aspects of Medicine*

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Rapid advances in sciences, communication and industry during the past generation have initiated forces which are changing the entire social and economic life of the nation. The automobile, the radio and the aeroplane, for example, have revolutionized transportation. Similar development in industry has produced changes that even threaten modern civilization itself. The two great problems are the equitable distribution of the benefits of these advances to all strata of society and the establishment of harmony between the conservative and liberal members of the community. In fact, scientific, technologic and industrial development has outdistanced social and economic adjustment forming the basis of widespread social unrest and economic uncertainty.

The same condition exists in medicine. The rapid progress in the medical sciences, the development of roentgen ray and laboratory diagnosis, the increasing emphasis of preventive medicine, and the rise of the specialties and group clinics and hospitals have brought about changes in medical practice far ahead of the social adjustments and economic ability of the masses of people. Medical practice forty years ago was a simple affair compared to the complex practice of today. Moreover, there is no frontier in this nation such as existed then. In fact, medical science is far ahead of society's ability and readiness to assimulate it, accept it and pay for it. Consequently, many people fail to secure the full benefits of this scientific progress. There is, moreover, a growing conflict between the disciples of medical autocracy and rugged individualism in medical practice and the advocates of federalized medicine and regimentation of practice. This conflict is becoming apparent both within and without the medical profession, and some equitable adjustment must be developed in the near future.

There is a growing discrepancy between what is known in medicine and what is available and accepted by the public. With this increasing gap between scientific medicine and its application, there is more and more suspicion and dissatisfaction of the doctor by the average man. Adverse and unjust criticism of the medical profession by the lay press, poorly advised medical publicity over the radio, blatant propaganda of the cults, and the reluctance of doctors to publicity of any kind are factors in fostering this suspicion. The exorbitant fees charged by a few physicians, the high cost of some special medical services, the superior attitude of many physicians with their apparent callousness and lack of consideration of the mental worries and comforts of the patients, their frequent snobbishness and aloofness from civic activities have added fuel to this antagonism.

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*Read at the Forty-eighth Annual Meeting of the Association of American Medical Colleges, held in San Francisco, California, October 25-27, 1937.

The frequency with which this scepticism towards the medical profession is found among the average citizens is most disconcerting to one who has spent his life among scores of medical men of the highest ideals and with the most sincere and earnest desire to serve humanity. Even high public officials often look askance upon the medical profession and its efforts to counteract the pernicious influence of the cultists.

This unfortunate prejudiced attitude of a large part of the public is due to the general apathy and indifference of the average busy doctor to the community aspect of his work and the public relations of his profession. The physician is working for the best interest of his patients; his conscience is clear, and he takes it for granted that the average citizen realizes and understands this, but in this he is mistaken. How can the average layman know that the doctor is sincere, thorough, honest, competent, and above suspicion when the press and the air are full of false medical theories, veiled accusations, and distorted facts. The medical profession is a good deal like an ostrich burying its head in the sands of science and ignoring the storms of economic and social unrest.

It is time that every physician study the social and economic forces influencing the life of his patient as well as the technical, clinical and physiologic disturbances affecting his physical and mental condition. Both react on each other. It is time that every doctor realize that he is a vital part of the community in which he lives and must play his part as a citizen in civic affairs, aiding in solving the social, economic and health problems peculiar to his particular community. If he does not do this, he should not be surprised if non-medical persons have more influence on the health aspects of civic matters than he has. It should not be forgotten that society, not the medical profession, will ultimately determine the kind of medical service it will have. It is the duty of the medical profession to educate society so it will demand the best that medical science can offer, and this can only be done if every doctor is awakened to this larger responsibility and seizes every opportunity to enlighten both his patients and his community.

It is true that in many sections of this nation there is an encouraging awakening of physicians to their responsibility to their respective communities with increasing interest in their public relations. However, this agitation has not yet reached the rank and file of the profession, but it is a healthy sign. There are many problems of community interest which the medical profession should consider seriously and provide an effective solution. The failure of efforts to improve conditions of medical practice in some states by the passage of basic science laws is due to professional apathy. In those states where the medical profession is active and on the job, appropriate legislation has been obtained. The medical aspects of recent social security legislation merits intense and thorough study by the profession. Other problems are equally urgent. Who shall care for the indigent sick? Who shall provide the more expensive hospitalization, special tests, roentgen ray examinations of the great bulk of self-respecting citizens who are just barely earning a living, want no charity, but who are suddenly faced with

a serious illness? Who shall determine the borderline between the full pay and part pay patient? Who is going to check up on the unreasonable, mercenary and incompetent doctor?

Moreover, it is time that the profession take effective steps to clean up its own house, if it wishes to retain the respect of the public. It is time that the profession stop ignoring or winking at the pernicious fee-splitting evil and take effective measures to eradicate it. It is time that the doctors provide the public with sane, effective ways of distinguishing the competent physician from the incompetent one, the bona fide specialist from the faker, and the true medical expert from the dishonest and unqualified one. It is time that the profession take positive action on these perplexing situations or it will be discredited as a whole before the bar of public opinion.

The apathetic tendency of the profession to the social and economic aspect of its patients and community is largely due to the failure of the medical schools to provide adequate instruction in this field to their students. It is only in the last few years that schools are beginning to take an interest in giving courses in medical economics and sociology. Many senior students are bewildered by the sudden appearance of this aspect of their training, and rightly question why they were not advised to prepare for this in their college courses. It seems to me that there is fully as much justification to make sociology and economics a requirement for admission to a medical school as physics. It is only in this way that the medical students can be made social conscious and more responsive to the public relations of their profession.

The community aspect of medicine is not always considered by medical societies and hospital staff meetings. Frequently, the effect of their action on the community is not even considered, and often leads to friction and misunderstanding. It would be a great step forward if such professional groups would ask the advice and seek the viewpoint of such lay individuals as are health conscious and interested in public health matters, such as hospital administrators, medical social workers and leaders in civic affairs. The inclusion of representatives of such interests would be a great factor in bringing about cooperation between all groups working for the welfare of the public.

Every young graduate should be impressed with his obligation to the community in which he practices. He should remember that he obtained his education only through the aid of some community or philanthropic agency. The tuition he pays is much less than the cost of the instruction he has received. Every medical school receives some subsidy either in the form of state or municipal appropriation or private philanthropy to carry on its work, largely because its graduates will be an asset to the public, and will repay it in services which they can render. Hence, every young physician should welcome any opportunity to become a coroner, a health officer, or any other public official even at a sacrifice to his own practice. He should regard this as a privilege, not as an unpleasant duty.

It is just as important that physicians be made social conscious as it is that the public be made health conscious. This can be brought about effectively by emphasis on the community aspects of medicine both in the medical school and after graduation. Such a study and social interest on the part of the medical profession will insure its rightful heritage of preserving the health of the public and supervision of all forces engaged, for four reasons: First, it will stimulate the young physician to take an active interest in civic affairs, and to seek and accept public positions for which his training makes him especially adapted. He will thus become more familiar with the social and medical status of his community, and sympathetic with and interpret the needs of the man of the street. Secondly, it will give the physician a better understanding of the factors which may have lowered the patient's resistance and apply appropriate measures to remove them. It is generally recognized that a patient's mental attitude often has a great influence on the course of a disease. Social and economic conditions directly affect the mental status of the patient, and are often, therefore, of prime importance in dealing with his disease. It is almost insulting to an intelligent patient to tell him that he will get well sooner if he would stop worrying, if nothing is done to prevent his family from starving while he is ill.

In the third place, this consideration of the community aspects of medicine will give the profession a better understanding and perspective of the relation of deep seated social and economic changes in society to medicine and will direct appropriate adjustments in medical practice. It should aid in discovering a path midway between the medical autocracy of the past and socialized medicine. It would save the profession from entering into unsound practices and following false gods in endeavoring to meet the demands made on it by changing social conditions.

Finally, this stress on the community aspects of medicine should inevitably make the public more health conscious and sell the profession to the laity. It means that the profession and all its members should engage in a concerted effort to educate the public by providing constant, honest, dependable, medical publicity. It means the education of the public to what medical science has to offer in terms that can be understood by every layman, and in such a way that he will demand their application and cooperate in rendering them available to all deserving persons. This publicity should be systematic, thorough and widespread, constantly interpreting the recent advances so that the public can understand and even demand their application. This may necessitate the employment of highly trained publicity experts with a medical background; in fact, there is no reason why specialists in this field should not develop as in the more scientific phases of medical practice. If some of the brilliant minds of the profession would turn their talents toward this phase, their efforts would merit the wholehearted respect of both the profession and the public. Moreover, the average doctor should discuss freely new advances with his patients, and thus aid in spreading correct information. While the individual doctor should not engage in personal publicity, there is no harm in his advocating publicity by individuals designated

by an organized medical society. So much hinges on correct publicity that only those specially trained should carry out the details, using the radio, syndicated articles, "pep" talks, and all methods used by skilled publicity experts. But it must be remembered that such publicity, to be effective, must be supported and emphasized by the rank and file of the profession in daily contacts with patients. In fact, only when each doctor is thoroughly aware of the community aspects of his calling and demonstrates this in his daily contacts with patients will the public look to him for guidance and become willingly health conscious.

Community Aspects of Medicine*

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The training of the physician is so highly technical and involves the knowledge of many important things so different from the usual knowledge possessed by laymen, that medical education stands apart and is often viewed as something of a mystery. The objective of the medical school is to prepare qualified men and women to enter the practice of medicine, and courses of instruction are planned to provide opportunities for the acquisition of as much essential knowledge as is possible in the time available. In the name of education, impossible tasks have long been asked of medical students, who have lead something of a monastic existence from the very time of entry to the preparatory school, and continues until professional training in college is completed.

In the medical school and during his internship the student sees the world passing by on the outside but takes very little part in the procession and pays little attention or has little opportunity to observe anything about the world into which he will be flung when he leaves the institution. This leaves him in a defenseless position with regard to his own management of his professional life as a physician-citizen. It makes him relatively ineffectual in dealing with the severe economic and professional ethical problems which continue to press so urgently on his profession. With training in what might be called the economic and social foreground of his future, he would be very much better equipped to meet those situations when he enters professional life.

By ceaseless trial the habit of reflection tends to be stamped out for such can only thrive on faithful, accurate and patient observation which has its roots in meditation, said to be the loneliest habit of man. Unfortunately, medical schools too frequently claim for their purpose not to train and test habits of thought, but to collect and store a set of facts which are to become the capital of the student and by these, perforce, he must live throughout his working life for infrequently has he been able to remember methods of adding to his possession of facts as time passes. As a young physician grows older, the facts taught are inclined to shrink and presently he is forced to replace them by a stock of worldly wisdom built on a growing discernment of the ways of human nature so that if he succeeds, he must become cunning in the management of men as he grows more helpless in the control of the many diseases from which they suffer. When medicine was but a slowly progressing science which did not alter greatly in a man's lifetime, such a policy was reasonable, but with the rapid changes in the field today, such a system leaves him bankrupt in his early professional years when he is scarcely beginning his medical life.

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It has been charged by many that the average medical student leaves school with little power for growth. For years he is directed to a different room for every hour of the day, along with others, all in the hope that he may one day recognize a disease because he has seen it before. Ten years later he stands much where he did at the time of graduation because those who taught him, or the course prepared for him to pursue failed to remember that one day he must reason problems out for himself. Without the perpetual activity of a disciplined mind, he must fall victim to every passing fashion and must live among the credulous. He may trust neither his industry nor his capacity. New departures are presented and incorporated in his studies with bewildering haste while with great reluctance much that he has learned slowly is swept away by discredit and disuse.

The way of escape alone remains that we recognize in theory and practice that the young physician be trained not only in the observation of facts but also in the habits of handling them; in methods of reasoning which alone supply any solution to the problem of his professional life. At the best, but a fraction of what is known can be taught and it is not possible to foresee all the situations which the student will meet hereafter nor to arm him with facts that are proof against any and every emergency. If we frankly own to the futility of such an endeavor, it may be discovered that we will foster his natural power of collecting facts which will remain and abide long after the actual training which we impart has been forgotten or may have proved misleading.

Today the medical profession is faced with new and intricate problems, the solution of which will tend to have a profound effect not only on the practice of medicine, but on the future training of physicians. There is a growing tendency to take from the profession itself many of the professional problems involved and look to their solution quite independent of the profession in the so-called interest of the people. There is a tendency always to adopt a conservative attitude toward changes of any kind until we are able to see the direction which such changes may take and until they finally rest in a more or less permanent form. Conservatism in this connection is wise but at the same time it is but the part of wisdom to consider seriously the problems which are before us and begin even in student days to formulate opinions and to consider seriously what, professionally, we may be able to do about it. It seems wise to expect from the medical schools a certain leadership looking toward this end with increasing emphasis on changes in training in the various aspects of medicine which seem now to bear a more fundamental and direct relationship to modern public opinion.

From all the discussions bearing on social and economic problems of the medical profession, too little in the way of concrete suggestions, plans or directed leadership has come from any medical school. Observation would lead to the conclusion that infrequently, if ever, our medical students at the time of the completion of the medical curriculum are prepared to meet many or any of

the social or economic problems which immediately confront them when they enter a hospital to serve an internship or when they open an office to enter on the practice of their profession.

It may be argued that schools are concerned only with the teaching of medical facts and with scientific investigations and not with the more practical issues of the profession. Such a view, in my opinion, is untenable for it remains a fact that many medical schools through their university hospitals and by other arrangements are themselves actively engaged in the practice of medicine and these activities are as practical in their application to economic and social complications as is the practice of any individual physician. There are many who may not agree that such practices on the part of the medical schools should be continued while others are certain that in the interest of the patient such practices are justified because of the high professional standards maintained by these institutions. Their interest in this and other similar questions seems important in order that a contribution looking toward a satisfactory solution might be offered.

If such leadership does not arise in our medical schools, it may fall into the hands of those less competent and untrained. Already the high type of medical service rendered is being attacked and the schools are charged with the "corporate practice" of medicine. Such attacks being made at times by members of our own profession for such practice does remain in competition with private practice. These procedures are properly defended on the ground that the patient receives greater benefits than might otherwise be available and such arrangement permits the broad teaching of medicine to students. Fees collected, too, under such arrangements, are often used for the purpose of stimulating research and to make intensive studies for the benefit of the patient and the profession. The voice of criticism grows stronger under the pressure of economic adversity. Much is involved in the question and offers but one example of the need for study, calm analysis and the scientific evaluation of all the factors involved in order that there might be determined once and for all the pattern which this type of endeavor shall follow.

Popular conception defines medicine as the care of the sick, but historically and scientifically the field of medicine has a much broader conception. It includes not only a knowledge of the function of the human body and mind, but it is concerned with centuries of investigation and experimentation carried on by scientists in many fields as well as by the physician concerned with disease and the application of such facts to their treatment and control.

The medical student of today should develop along several lines and instruction should be directed toward making available to him that vast amount of important information available in the field of economics, the social and ethical aspects of medicine, while, at the same time, continue to demand of him the acquirement of many facts relative to the human body and the signs of departure of the tissues of that body from the normal and demand the professional services of a physician. A second obligation requires help by some measure of guidance so that the student of medicine before he goes into practice shall be able to

formulate some sort of a personal philosophy regarding his own profession. Medical schools must, therefore, not only concern themselves with the medical knowledge presented to view the body as a whole but also to guide the student to some extent in the ways of the world, important trends and movements, and how to live successfully in such an environment.

Several medical schools appear to be admirably meeting many of these requirements. Dr. Park J. White gives a course at the Washington University School of Medicine, St. Louis, under the title "Medical Ethics and Professional Conduct." He states that no course required more frequent revision in order that it would be kept up-to-date. He believes, as do many others, that a student should not be permitted to graduate until his interest is at least stimulated in the present attitude toward contraception, abortion, euthanasia, eugenic sterilization, systems and principles of medical practice in this and other countries, industrial medicine, health insurance, and even state medicine—its meaning—which is proposed often in this country, but actually practiced only in Russia. With it all, such a course does permit certain positive teaching concerning the best of ethical standards with the background of the ideals and traditions never repudiated nor replaced by any other system or plan of professional service yet adopted. Old principles remain when modern training in medicine directs attention to modern ideas and their application to modern practice with something of an analysis of its ethical standards and professional problems. More schools should give similar courses which too frequently are not now included in the medical curriculum.

To convey to the medical student information as to what is going on in the various fields of medical science and at the same time try to help him by some measure of guidance before he goes into practice, a formulation of some sort of a personal philosophy regarding his profession remains a responsibility which we cannot disregard. Plans of instruction may change to allow for the full measure of guidance in the attainment of these two objectives. This may be characterized by the instruction of the student and intern in the ways of the world in which he will live and work and with a wealth of information in their social, legal and economic aspects which influence and affect the practice of medicine. If result may be mentioned as a criterion of success in these fields of teaching, little or nothing has yet been accomplished. However, through the influence of clear sighted men who have visions as to the future, more and better opportunities are being provided. Perhaps a satisfactory plan has not yet been devised and adequate opportunity for orientation in the field has not yet been developed.

The contact which the medical student has with successful professional men, men prominent in their profession and in the community, does permit him to acquire by precept, discussion and daily conversation, a great deal of information and aids in the formulation of such a philosophy. The influence of a strong personality on the faculty sometimes dominates the thought of the student to the exclusion of notable contributions from men not so well known nor so popular. It may be true, too, that where a full time system of instruction prevails, the type of philosophy will have less breadth of scope and may be lacking in the

detail of other important experiences common in the practice of physicians not so engaged. General lectures by one or a few men not really engaged in teaching who have tried to gather and present at one time all the necessary material on hand, are too often ineffectual, dull and somewhat divorced from reality and fail to permit full value because of lack of coordination of such presentations into a complete instructional program to meet these modern needs.

Modern medicine has developed certain social aspects which arise from a more complete picture of its historical development and its continuing relationship to society. Material presented to be common-place and practical must be drawn from the actual current experiences of persons engaged in such activities. No physician is equipped to practice medicine unless he has had certain instruction relative to laws determining licensure, the practice and the legal obligations of the physician himself, sanitary codes of state and governmental regulations pertaining thereto, information concerning birth and death certificates, relation to the coroner and other simple items of detailed information seldom acquired. He should also know something of the broad system of laws, regulations and legislation affecting the entire population with their bearing on his medical practice. For example, current legislation, as found in the Social Security Act, provides unlimited funds to carry on certain public health activities, tends to offer marked changes in a given locality of vital concern to the profession itself. Several million people in the United States are directly concerned with unemployment. Multitudes of disorders of the body and mind arise from such maladjustments. Hospital reports show causes of death as pneumonia, when the cause was exposure and hunger. Tuberculosis may not have occurred but from overwork, living in sunless rooms, dust, bad air and other human problems which cannot be separated from the disease.

In connection with the type and character of the practice, it may well be said that the manner in which his profession is practiced as he daily observes it may have much to do with the physician's own pattern of thinking as he develops his personal philosophy regarding that practice. The student should be taught the plan and purpose of medical organization as well as the manner in which these plans and purposes are met. Included in such a course should be the critical and interpretative investigation of so-called medical ethics. The physician is called on to be ethical in a world in which he is surrounded by standards of conduct which are not ethical. He hears of the evils of fee splitting and discovers that often those who preach against it are men engaged in such practices. He is confused and wonders about his ethical duties and discovers that class ethics are isolated and hard to maintain. Mixing the services of his profession with business competition for a livelihood puts a strain on his ethical sense and he needs to develop a real philosophy before that strain becomes too great. If doctors' incomes were guaranteed and they had only to be concerned with professional service, the matter would be different, but, again, this, in itself, would demand a new set of professional standards.

The attitude of the medical profession still remains that the welfare of the

patient is the first concern of the ethical physician. This precept kept always before him will result in a line of conduct which calls for the elevation of his calling to a high professional plane. The ethics under which we labor are approved by the profession which tries to adapt itself to an economic system inconsistent with such ethics. The result is a struggle between two forces hard to reconcile and the young physician, as well as his elder, often remains in doubt, irritated by his restraints, aware of his privileges and bound by his obligations.

There are new and increasing opportunities for careers in medicine, and some positive teaching should be directed toward the type of professional activity in which the student will engage, dependent somewhat on his interest and the type of service he has in his mind to render. Discussion of modern and rural practice; opportunities and requirements in the various specialties, including the new specialty of medical administration and public health, and methods of practice including group practice, industrial practice, hospital insurance practice. A full discussion of the development of such practices under civil and military governmental service should be given to the student. Today, knowledge along these lines is usually acquired accidentally and haphazardly. The sources of information are limited, except as may be acquired from the reports of men who actually know conditions and who may be persuaded to speak for the benefit of others.

The medical student and the doctor, too, are in danger of over-doses of technological training and becoming surfeited by undiluted medicine. These studies might profitably be sweetened by the introduction of studies which broaden the views from the narrow picture of disease to the larger scenes of all society. The quality of the doctors would be improved by adding social thinking to their training; the physician might acquire a special medical culture which would impress him with a new conception of medicine as an art and give him a greater concern for the doctors' relationship to humanity. European universities have carried this branch of teaching further than we have. As far back as 425 B.C., Hippocrates wrote a book entitled "Ancient Medicine" in which he discussed doctors and medicine of former times. He said that a physician must know what physicians before him have known; if he did not, he would deceive himself and others. Medical history acquires its best value only as it is converted into medical sociology. This is the atmosphere in which good physicians are bred. Knowledge, because of its commercial uses, is apt to be given a greater value than reasoning, but education is, after all, best concerned with the emphasis on thinking.

Osler was fond of quoting the poet Cowper's lines:

> Knowledge and wisdom, far from being one
> Have oft times no connection. Knowledge dwells
> In heads replete with thoughts of other men;
> Wisdom in minds attentive to their own.
> Knowledge is proud that he has learned so much;
> Wisdom is humble that he knows no more.

Community Aspects of Medicine*

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The problems of medical economics have recently loomed large on horizons throughout the world. In the past seven years, in particular, proposed changes in the field of medical economics have assumed such proportions as to challenge searching attention. What has taken place in community medicine in other countries makes it imperative that in this country careful study be directed to the underlying theories and the general economic changes involved that may affect medical practice in the United States. Rarely, in the history of medicine has there been so clear a call for sound thinking and rational procedure as there is today.

To bring about change is less troublesome than to resist it; but proposed change should be interpreted and evaluated in terms of future welfare rather than present expediency. The high standards attained by the medical profession have been built on a "proof-in-practice" attitude. They have been the result of evolution. While it is true that there have been certain revolutionary developments in the field of medicine, change, as a rule, has been gradual and constant. Through it all the ideals of the profession have remained inviolate. This consistent attitude is reflected in a recent characterization, which referred to "the stern demands of the medical profession in which no compromises are accepted."

But the medical profession is constantly confronted with the temptation to "ape" commercial practices. These, as a rule, are built on premises so different in character from professional objectives that the fundamentals of medical practice forbid their use. Standards of conduct in the business phases of medicine should differ in no essential from the standards which govern professional practice in medicine.

The fundamentals of conduct are not a mere matter of precept or even of tradition. They are inherent in the man in the sanctity of the service he performs. "Where the love of man is," wrote Hippocrates, "there also is the love of the art of healing." And another great thinker, putting the same truth in a slightly different epigram, said simply, "Only a good man can be a great physician." It follows that the fundamentals of conduct cannot be taught in a medical school by the lecture method. There must be some higher appeal than the learning of a lesson; some deeper motive in the student's make-up must be awakened. He must have aptitude to an appreciable degree—the ear-marks of true membership—ability, worthiness, the incentive of devotion. He must have also a sense of values, which, when sufficiently present, will serve as a regulator of his actions. It does not matter in which field his conduct is applied—it may

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be in medical practice, it may be in the economics of medicine, it may be in his family life—the same behavior pattern will govern his action. One of the most effective methods of instruction is by example. A student will be influenced more by the conduct of his instructors—what they are—throughout his entire course in medicine—in the preclinical subjects, in physical diagnosis, in the clerkships, in the outpatient clinic, and in ward rounds—than by their teaching. A good instructor must have aptitude himself—the evidence that he "belongs." He does not have to "preach"—his personality should be such that he will influence his students by association.

This does not obviate the necessity for the physician and the medical student to become acquainted with social and economic changes which seem to be taking place; for it is important that these changes be studied from the standpoint of their permanent effect. Only a small part of the theories applied to the social, political and economic fields, actually stand the test. There is a definite place, therefore, in the medical curriculum for a course in medical economics. Students and physicians need to know of the application of the business side of medicine. They need to possess a certain amount of technical information, to know the various forms of medical practice that are being tried throughout the world, and to understand how the ideas that dominate them coincide with the views of the majority of the medical profession in this country.

Students also need to review the fundamentals of general economics. Numbers of medical students in my classes have never had even an elementary course in economics. Demands are so great on the student's time that he cannot be expected to go deeply into the fundamentals, but it is my opinion that a course in the rudiments of economics and sociology should be included in the requirements for admission to medical schools.

CHARACTERISTICS OF A COURSE

There are certain characteristics which we believe are desirable in a course in medical economics:

(1) The course cannot be too elementary. In the time usually available the instructor cannot teach students more than the rudiments.

(2) Emphasis should be placed on the value of sound thinking in applying business methods to medical practice. A mere set of rules will not meet the requirements of the physician. There is need for a liberal use of the type of "horse sense" that implies keeping all "four-feet-on-the-ground."

(3) The principle should be impressed that professional ethics apply throughout the entire field of medical practice, whether it be in the application of medical science, economics, politics, or social science.

(4) The course should not reflect too much the personal opinions or experiences of individuals, but rather should be built around recognized subjects related to the business of medicine.

(5) The instructor should point out the fact that all instructors in the medical school teach the subject by example.

(6) A study should be made of the content of other courses in the medical curriculum in order to eliminate duplication as much as possible. For instance, some of the material could be covered in medical jurisprudence or economics.

(7) Though one lecturer may not be qualified to cover the entire field, the number of lecturers in the course should be limited.

It is unusual, of course, to find one instructor with a knowledge of the subjects of economics, ethics, organized medicine, forms of medical practice, accounting, income tax procedure, etc. Even so, the fewer the lecturers, the stronger the course should be.

SUBJECT MATERIAL

The subject matter of a course in the community aspects of medicine might well be grouped under the following headings:

(1) *Ethics of the Medical Profession:* In connection with this lecture, a copy of the booklet published by the American Medical Association, "Principles of Medical Ethics," should be presented to each student.

(2) *Principles of General Economics:* Inasmuch as many students have not had courses in economics in their premedical work, it is desirable to go into the economic principles applying to the practice of medicine. Incidentally, this will give occasion to touch on the inability of the medical profession, as compared with industry and commerce, to apply economic principles.

(3) *Forms of Medical Practice:* This subject should include an explanation of the various forms of practice that are being applied, such as contract practice and systems built on insurance principles, and a forecast of other types that may later be tried.

(4) *Socialization of Medicine:* An explanation of socialized medicine, as developed in some European countries, should be given in contrast to the medical system prevailing in the United States today. The student should realize that, regardless of desirability, socialization of medicine is bound to take place in somewhat the same way and to the same extent that other professions, industry, commerce and agriculture, are socialized. It is foolish to assume that socialization will not affect the physician, when it affects others.

(5) *Problems Confronting the Medical Profession:* Special problems confronting organized medicine should be presented. In pointing out the value of organized action, students should be told of the importance of selecting for leaders members of the profession with the highest ideals and standards. Medical politicians are fundamentally no different from other politicians, and there is no place in organized medicine for the leader with interested motives.

(6) *Participation in Community Service:* It is important that the student be reminded of his obligations to the community. As a patriotic duty, he is expected to render to the community miscellaneous service, of a non-professional nature, in the same manner as other citizens.

(7) *Charity:* There should be a discussion of the duty of the physician to charities, as recognized in the application of medical ethics, and the extent to which the doctor may reasonably be expected to provide services without remuneration.

(8) *Management of a Professional Practice:* Under this heading should be presented such fundamental information as patient record routine, office management, essentials of a bookkeeping system, collection practices, preparation of income tax returns, etc.

LECTURE ASSIGNMENTS

A once-a-week, one term lecture course covering this important subject matter can be divided as follows:

Ethics of the Medical Profession, one lecture.
Principles of General Economics, two lectures.
Forms of Medical Practice, two lectures.
Socialization of Medicine, one lecture.
Present Day Problems of the Medical Profession, one lecture.
Community Service and Medical Charity, one lecture.
Management of Medical Practice, one lecture.
Review, one period.
Examination, one period.

If more than eleven periods are to be allowed for the course, many related topics in the field of economics could be included to supplement the material scheduled.

In addition to the required course outlined above, it would be highly desirable to offer, on an elective basis, a seminar in which students present the subjects and participate in the discussions.

The last and most important consideration in instructing students and physicians in the community aspects of medicine is to place a proper relative value on elements covered in the course, and above all to be certain that students do not overestimate the importance of economics in the practice of medicine. The code of ethics and the high standards of skill that distinguish the medical profession have withstood many bombardments. Let these factors still dominate the practice of medicine.

DISCUSSION

On papers by Dr. H. R. Wahl, Dr. B. W. Black and Mr. Ralf Couch

DR. H. G. WEISKOTTEN (Syracuse University): Suuch an enormous field has been opened up in connection with this symposium that one hesitates to attempt to discuss the subject. For a number of years, we, at Syracue, have been very much interested in experimenting to find out what we could do in connection with the training of students in the social and community aspects of medicine. As we studied the matter, we felt it was probably true that medical education had become too institutionalized, and that, if we could do something that would give the students a little better viewpoint of what was involved in adequate medical care, it would be worth while. The more we studied the matter, the more convinced we became that we would not accomplish much by instituting new courses in the curriculum. The papers of this morning certainly offer opportunities for several new courses.

We approached the problem from the standpoint, first of the social aspects of medicine and tried to incorporate a certain amount of training for the students in connection with their work in the department of medicine. We required each student to make a complete study of at least one case which had been assigned to him on the medical ward of the hospital. This study involved a personal investigation of the home, living and working conditions of the patient, with the idea in mind of trying to find out: what it was in the life of the patient that caused him to become ill; whether the home was the proper place for convalescing; whether the home, living and working conditions were proper for the patient to continue in after convalescence, or whether they would predispose to a recurrence of the illness; and what th financial situation was in the home. Finally, the student was asked to submit a program for the adequate handling of the case. The students report at a seminar meeting held once each week under the chairmanship of the professor of medicine. The professor of psychiatry, the professor of public health, the professor of sociology in the university and the medical social workers also attend and participate in the discussion. Groups of six or eight students attend the seminars. We feel that what we are doing is just giving these students a viewpoint of what is involved in adequate medical care.

As far as the community aspect of medicine is concerned, we have tried an additional experiment. This has involved a clerkship in public health. Students in groups of five or six are assigned to this clerkship forenoons for a period of six weeks. They are not simply taken on a tour of the various community agencies, but they actually go into these agencies for varying periods of time and have the work described to them and actually participate in certain aspects of it.

After all of this experimentation, I am thoroughly convinced that the most imporant responsibility which we have in the medical schools of this country is to provide for the students a means whereby they can get a sound fundamental training for the scientific practice of medicine. However, I do think that it is important to give them some opportunity to get a clear viewpoint in regard to all of the various aspects of medical practice and of their community responsibilities in the field of medicine.

DR. LANGLEY PORTER (University of California): I want to make a plea for the student. No one today has had very much to say about the student. It seems to me that, perhaps, we are getting infected with the spirit of fascism that is running wild all over the world, and we have forgotten, some of us at least, the student's right to his own soul and to his own freedom.

We are not dealing with secondary education. We are not dealing with boys in high school. We are dealing with men and women who should have come to us with their social conditioning already well under way. It is perfectly true that it is incumbent on us to carry on this conditioning. You remember that Osler said that a medical

school or any other educational center is a place whose duty it is to expose young minds to the incandescence of more experienced and wiser minds. As medical schools, that is our primary function.

We talk much about courses; we fill the whole of our medical schools with the smoke of words and requirements, until too often the glow of the incandescent minds is blotted out. The students cannot get at those minds when all the time at their disposal is filled, and when they are told what to do and what not to do, what to think and what not to think. Such regimentation, in my opinion, is not our duty. It is our duty to see that our teaching staff supply a good proportion of those incandescent minds, and to see that our students have leisure, which will give them opportunity to take advantage of their exposure to the incandescent minds, and to consider what happens to them in the incendiary reaction that should follow such an exposure.

When we come to discuss the arrangements of lectures and other courses for the students, it must be recognized that, except for laboratory and clinical work, nothing can be done other than to fill the student's mind with words. No course that it is possible to give in the medical school can do more than orient a young man in the field of medicine and give him a nomenclature to use in his future work. We have no chance to direct the development of the student's mind. If, when he comes to us from the university, he lacks the mind and the training which enables him to create useful knowledge out of his own experiences, we had better get rid of him at the earliest possible moment.

I am in great sympathy with the idea that medical students should be exposed to opportunities for wider social experience, especially with those wider social aspects which illustrate the great possibilities and powers that medicine has to help ameliorate the sufferings of the individual and the ills of society. But I believe that this exposure is best done, as it is in some medical centers, by offering opportunity for practical experience; by cooperating with the social service departments, and by encouraging the student to make home visits to the needy clinic patients.

Our own students enter the wards of the City Hospital for clinical work for the first time in their third year. Here they come into close contact with indigent patients. Here they must meet the wrecks, not only those already wrecked, but those in the process of being wrecked by society. These students do not need to have had a course in economics to realize that this wrecking economic situation is all wrong. It is not the business of these medical neophytes to right the situation, but it is their duty to protest against inadequate social provisions for nutritive needs and for medical care.

I do no know what you find in your own schools. Apparently, the experiences of some of you differ from mine. But in meeting medical students at California, which I do very frequently, as groups come into the Dean's office to discuss some of these things, I find the young men and women to be highly socialized in their thinking. I find that their thinking is not confined to medical technique nor to the ways to earn a living through medicine. Many of them are giving real thought to other problems; of what they can do to make a better world for their patients, for themselves, and for any future children that may be born to them.

One of the discussants said that we had a monastic medical student group. That is not true in the University of California. The students there pick out a girl, usually a nurse or a technician and get married early. And then they try to support her and themselves and get a medical education at the same time. They know what economic trials and stresses are.

At the San Francisco Hospital, Health Director Dr. Geiger maintains an excellent department of social service. The third year men, in their first clinical contact with sick people, are in constant touch with this social service. They do not go out in that year to make sick calls. This they do, to some extent, during their fourth year. You heard Dr. Lucia explain yesterday how we try to keep students in touch with these

things. Dr. Kerr, I think, has established a most excellent method. There are others probably as good or, perhaps, better and we should like to know about them and be able to utilize their experiences. In our own plan, when students come into the outpatient department and the wards, they become responsible for the total health problem of the human being, not for an "itis" of some sort or other, appendicitis, iritis or some kind of other pathologic abstraction. What it is sought to make the student responsible for is a man, woman or child who is out of adjustment with his environment, physical, social, economic or personal. We are trying to teach these men and women that health means adjustment to environment and that the doctor's business is to know not only the patient, but the patient's background; to understand that no one can be a doctor unless these things, together with those so ably discussed this morning, are known and practiced.

The student must be able to help the man who cannot pay a doctor; the man who does not know how to get to an agency when he needs agency help; the man who does not know he can have a visiting nurse if he needs one; how to secure a blood donor for an indigent individual, and a hundred more such things. We believe that our students at the end of their fourth year are impressed with these needs and have a knowledge of how to meet them for the patient's benefit. We often are surprised to see to what a great degree clinic patients lean on the friendship and aid of the student clinician. Long after the young men have gone to another department, patients continue to come back asking for "Dr. Jones" or "Dr. Brown," the young man or young woman who helped them through their troubles. That is, I believe, one valuable approach which may be used in the teaching of medical sociology, social economics, psychiatry and mental hygiene.

I hear people talking about "medical ethics." Of all disgusting phrases I think two, "underprivileged" and "medical ethics" stand out. A man is either privileged or he is not privileged; and a man is either ethical or he is not ethical. In a medical school you cannot teach a man to be a gentleman or to be honest. He has to be inherently ethical and his ethics have to be just as much a part of his makeup as is his metabolism. What is the use of trying to tell a man to be good, decent or honest, not to lie or abuse his responsibilities, or not to abuse the patients? You cannot do it that way.

At California, Dr. Kerr and Dr. Lucia have established a course which they call "the art, business and ethics of medicine," and it covers very much the same ground that one essayist has told us is covered in his university. But with us it is not a required course; no examination is given; it is elective and is staffed by the best men we can find for the purpose, the men we think most experienced, the incandescent minds. Many of the speakers are brought in from another medical school in order that the students may have touch with successful practitioners and specialists. Mimeographed copies of all the lectures are supplied to the students. In spite of this being an elective course, it is better attended than most of our required courses.

I should like to endorse the idea that the department of the history of medicine in the medical school should be concerned, above all things, to point out to the young men, for their reading and discussion, what the past has meant to medicine—scientific, clinical, public health—and to how great a degree medical progress has depended on social and economic developments; and also to point out where the lessons of the past can be applied today. That I believe is an immensely valuable thing, best done through seminars.

As an old man about through with this field of work in medical education, I want to emphasize my plea for the student, give him more freedom; do not keep him if he can not use his freedom wisely and well; but do not, for God's sake, tell him what he has to do every hour of the day and how he has to do it.

Dr. Maurice H. Rees (University of Colorado): I have been very much interested in all of these papers, but especially the paper by Dr. Wahl.

In managing a state hospital, we are impressed by the lack of understanding of the patient on the part of the doctors in the cities and how much better the doctors in the country understand the patient. Patients come to us from country districts where they have the old family physician relation and the psychology of the patient is understood. In the city, the doctor does not seem to take time to know his patient. He knows very little about the family problems or relationships, and the difficulties that obtain in that patient's family.

I was interested in Dr. Porter's remarks, because I think he pointed out one defect in the economic training of his students. In our institution the students pick out young ladies who are able to support them.

DR. ALAN M. CHESNEY (Johns Hopkins University): We have had some experience in Baltimore in this field. We have approached the subject from two points of view, first, from the historical angle by means of a course which Dr. Sigerist gives in the history of medicine, and, second, from the standpoint of individual case study. The student who becomes interested in the subject of the history of medicine has an opportunity to follow it over a period of years, beginning with the history of anatomy and so on, and finally in his fourth year he has an opportunity to take a course in what is called the "social aspects of medicine," given by Dr. Sigerist in the form of a seminar, in which the historical development of medical practice is traced from the earliest period and the relationship of the economics and the prevailing mores of the people to medical practice is brought out.

We have recently been extremely fortunate in being able to approach the subject from the point of view of the individual patient. We had the great good luck to have Dr. Canby Robinson come to Baltimore as a lecturer in the department of medicine to undertake an investigation of what he calls the "accessory factors of health," meaning by that the social and economic problems of the individual patient that have a bearing on his particular illness. What Dr. Robinson is trying to do, from the standpoint of investigation, is to take a series of run-of-the-mine patients, study them carefully and try to assay the part which economic and social maladjustments play in the particular illness that brings the patient to the hospital. Obviously, it is a difficult field to evaluate, but, nevertheless, he is making an earnest attempt at a correct evaluation. We have made use of the fact that he is present by urging him—it was really not necessary to urge him—to undertake the introduction of students to this field, and it now forms part of their medical work.

What Dr. Robinson does is to take the group in outpatient medicine, roughly, from 20 to 25 students, and assign them run-of-the-mine cases in the dispensary for social and economic investigation. The student, not infrequently with the help of Dr. Robinson but quite as often by himself, as I understand it, goes to the home and collects detailed facts concerning the family, establishing a very close relationship with both the patient and the entire family. The data which he collects are discussed at a weekly conference or seminar, call it what you will. At any rate, the patient is brought in and shown to the group, the home conditions are described, and the problems of the individual discussed.

It seems to me highly advantageous, where possible, to expose the student to this kind of instruction.

DR. H. R. WAHL: I do not believe that it is desirable to add a number of new courses to the medical curriculum. The only point I wish to emphasize is the insertion of the idea in most of the clinical courses that are given that the students should be social-conscious. Each individual instructor can very frequently bring out that aspect of his work as he discusses individual cases. If that is done in most of the medical schools, within five or ten years the public will have a somewhat different impression of the profession as a whole than they are getting at the present time.

Some Desirable Changes in the Outline Content of the Undergraduate Program in Pathology*

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In the wide field of pathology, the student can acquire only a superficial knowledge of its main facts during his undergraduate course of study. It is, therefore, important that he shall receive impressions which will cause him to return frequently and understandingly to this source of basic information when solving his problems of medicine and surgery.

The undergraduate's course in pathology is generally regarded as being formidable, and the textbooks used are relegated, when not sold, to places of secondary importance to texts on medicine and surgery. The question naturally arises, can we have less of content and more of fundamental importance in the courses taught? May not closer correlation with applied principles of practice be attained, and shifts in emphasis be brought about in textbook literature whereby the guides here set forth will be in more constant use?

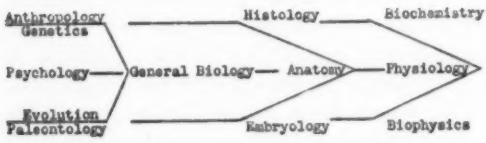
In the practice of surgery and medicine one witnesses many failures coming directly from ill advised efforts to obtain "ideal norms" of health and "estimated average norms," when the patient's ability for this possession has been qualified by inadequate inheritances, by depressions of age or wear of life. Likewise, in pathology, one often hears students remark in the clinic and in gross and microscopic tissue study conferences, "We do not know what the normal should be like." Not infrequently, our students, in their contacts in clinical medicine and surgery, have more experience with pathological criteria than with the criteria of normal mental and physical good health. The emphasis in the study of pathology is laid too heavily on "disease processes," and too lightly on "man," who must have these diseases. Criticism has frequently been made that our highly trained young men pay little attention to patients and almost exclusive attention to disease processes and their detection by laboratory methods. In the operating room, some surgeons with extensive technical experiences are habitually failing to recognize normal tissues. At the bedside and in the office, very many failures have been made in recognizing patients who are striving for impossibly high levels of health in order that they may spend energy which they would never possess except at the expense of needs for normal living. Physicians should not be helpers in this profligate expenditure.

The objective of medical knowledge is the proper understanding of man and his diseases, and in no branch of medical science more than in pathology is there greater need of knowing man at his normal in his developmental phases, his transitional stages, his maturity, his senility, his mental and his physical strivings

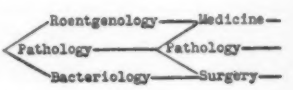
*Read at the Thirtieth Annual Meeting of the International Association of Medical Museums, held at Chicago, March 24, 1937.

as he reacts to internal and external stimuli in the varying changes of life's environment. Physiologic, chemical, morphologic and psychologic criteria must be known at their normal to evaluate the pathological properly. Apropos of the undue emphasis now being given to disease processes, with but little or no attention to man in his normal state, I was challenged as being incompetent to give expert testimony relating to a patient who had lived through an accident. The reasons advanced by the corporation lawyer of a metropolitan city being "that a pathologist was only experienced in giving testimony upon dead people." Definitions of pathology were cited from different textbooks which in substance stated, "Pathology is the study of the processes which go to make up disease." A pathologist, then, he concluded, was not experienced to testify as an expert if the patient was now in normal health. It was necessary in this case to show years of experience in the practice of judging humans in the normal, as well as in the abnormal, to satisfy the court.

The best preparation for the study of pathology is efficiency in anatomy, psychology, physiology and general biology. With these, there should be obtained a good understanding of bacteriology, biochemistry, embryology, genetics and a reading knowledge of anthropology and paleontology. In brief, it can be affirmed that the more complete one's scientific knowledge of "man" is, the better is he prepared to comprehend his "disease processes."



1. Supporting Subjects of Pathology



2. Subjects Closely Affiliated with Pathology

The writer of the most usable text for the study of pathology should blueprint its contents with even greater care than is done by the architect who plans a model house. It should be a model in organization of subject matter under the inclusive topic "Man and His Diseases." In one of the latest editions of our textbooks, the word "liver" was followed from the index to the textual pages. To gather the contained information on this subject required references to 105 different sections of the book. One such experience for a busy student or a hurried surgeon would suffice. Yet this text is consecutively well written; but reading hundreds of pages at one sitting is more than can be expected even of an enthusiast in pathology.

It is quite generally agreed that two main divisions, general and special pathology, are desirable. In most texts now available, there is close uniformity in the assembling of subject matter for special pathology in from eight to ten systems, but in the discussion of general pathologic principles there is need for greater unification. It may be appropriate to suggest that but one chapter need

be used for this unification, if well chosen topic headings invitingly designate the common factors of general interest to the "mind-body" as a whole. This could be followed by six more chapters with well planned topics for the general discussion of developmental, malformative, vascular, inflammatory, degenerative, neoplastic deficiency, redundancy, and unclassifiable processes. With clearly organized textual descriptions, appropriately illustrated, lecture work can profitably be abolished and conference discussions substituted. Then, a few carefully selected slides of the loan set, gross specimens, case histories and patients can be used to teach the threshold and foundations of general pathology interestingly and clearly.

After this, systemic pathology can be organized in ten chapters and taught with greater satisfaction to both students and instructors.

TABLE OF THE TWELVE BODY SYSTEMS

I. Genital: (a) Female; (b) Male.
II. Urinary.
III. Endocrine.
IV. Digestive.
V. Cardio-vascular.
VI. Respiratory.
VII. Hematopoietic and Recticulo-endothelial.
VIII. Nervous (psycho-pathology).
IX. Nervous.
X. Organs of Special Senses.
XI. Cutaneous System and Appendages.
XII. Organs of Locomotion.

The materials used in general pathology may be reviewed advantageously by taking them up again in the systemic work. At the beginning of each system, the organs discussed should be listed, and a brief summary of the anatomy and physiology given. The space used is well paid for in recall values. If the text is in accord with the literary exactness of having the first sentence of each paragraph definitely tell the gist of its content, and the last sentence its summary, a large saving of time will be achieved and clarity of diction improved.

In a survey and tabulation of the contents of eighteen modern textbooks on pathology, many interesting points of comparison and contrast were found. The relative importance of the different systems could only be judged by the author's interest. The digestive, generative and nervous systems appear to lead in assigned pages by Kaufmann, Aschoff, Delafield and Prudden, Boyd and Green. One of our prominent specialists in Detroit has been in the habit of telling his students how he decided years ago to become a gastro-enterologist. He had trouble in choosing a specialty, and he decided to visit many drug stores and examine many prescriptions. After completing this research, he found that 90 per cent of all prescriptions written were for ailments of the digestive system. This decided his choice of specialty but did not necessarily indicate the actual illness of the community, but certainly did give a practical idea of the treatment practiced. With the shift of interest in America from digestive to cardiovascular troubles, one might facetiously suggest that the front page in textbooks be given

to the cardiovascular system. However, one finds in certain texts that the endocrine system has reached the front page, though not the first column! In texts written since 1923, only five, namely, Green, MacCallum, Kaufmann, Power and Hala, Beattie and Dickson, include descriptions of cutaneous pathology. This omission can scarcely be in the interest of medical students who will practice general medicine and surgery. One may as well ask, "Why not exclude the nervous system?" If knowledge is to be extended concerning only the receptor-adjustor-effector mechanism, which is very important in physical reactions, this system should not be excluded.

Systematic Pathology		Aschoff 1936-1928		McLafield and Prudden 1936	MacCallum 1936	Muir 1936-1925		Karsner 1935	Bell 1934	Boyd 1934	Green 1934	Kaufmann 1929	Power and Hala 1929	Beattie and Dickson 1926	Lüdke and Schlayer 1922	Vierhuff 1921	Kaufmann 1921	Stengel and Fox 1921	Adami and McCrae 1914	Adami and Nicholls 1908	Welch and Flexner 1902
I	Genital System	143	155	126	58	57	43	61	43	77	65	346	56	21		34	51	72	43	20	78
	Female	97	106	106	38	48	34	45	37	66	56	269	46	14		26	38	56			78
	Male	46	49	20	20	9	8	16	6	11	8	66	10	5		7	10	15			
II	Urinary System	75	82	60	72	62	47	58	61	61	58	166	37	66	40	26	45	58	32	72	89
III	Cardiovascular System	97	108	66	166	88	69	70	38	51	41	185	67	67	147	19	63	65	47	93	59
IV	Endocrine System	63	55	17	45	50	37	34	27	45	39	74	37	30	51	4	3	19	6	40	35
V	Hemadopoietic System	58	62	72	102	92	64	46	20	63	47	107	41	97	110	7	17	55	47	125	49
VI	Respiratory System	68	74	71	95	60	48	66	23	57	32	204	56	71	47	38	72	73	48	102	56
VII	Digestive System	239	263	125	180	128	81	117	64	113	86	508	93	100	68	28	112	112	84	176	88
VIII	Nervous System	114	96	135	60	94	74	40	40	85	95	228	49	69	75	27	47	120	49	160	168
IX	Cutaneous System		29		60						6	157	12			10		21	12	72	68
X	Organs of Locomotion	75	78	92	68	52	43	54	20	54	29	261	42	49		24	54	37	27	85	84

Contents of 18 Text Books on Pathology Published Between 1902 and 1936 Giving Pages Devoted to Each of Ten Systems.

In seven of the most recent textbooks of pathology written in English, a total of only 39¼ pages is allotted to discussions on development, heredity, inheritance and constitution. Commenting on this trend, one must say it deprives the student of textual correlation with many problems in both general and systemic pathology where fundamental knowledge is being applied practically. Supplying these data in lecture form, or supplying reference readings, is not entirely satisfactory. It has been said, "Exclusions must be made to keep down the size of the book." A student's comment is quoted herewith, "Why does not the author put in his book what we need rather than what interests him most?"

Aschoff has offered the unreasonable reason for leaving out the cutaneous system in his last edition, that "he does not have room." The student is entitled to have in the assigned text all that is needed in the course.

Illustrations in some of the recent texts have attained a high degree of excellence, but there still remain numerous instances where omission of the accompanying legend would leave the picture unidentifiable for even an experienced pathologist. As one reviews the same subject in different books, he cannot help wondering why greater use is not made of tabulations to save many unnecessary words.

Excellent results are obtained at the beginning of the course in pathology if one's choice of textbook is explained carefully. Time spent in getting the

students well acquainted with the arrangement of the text is profitable. The vocabulary used in pathology may be defined and properly illustrated during the first week. Heredity and inheritance studies in relation to pathology may be taught interestingly by having each student prepare six inheritance panels of himself and signed by number only. These panels set forth the family anatomic, physiologic, psychologic, immunologic, environmental and longevity patterns. The significance of this subject in relation to pathology is pointedly emphasized by Aschoff, who says, "Constitution includes the general human and personal disposition, the family disposition, the inherited tendencies. The word "disposition" (disponere) means that an organ has a greater tendency, in one way or another, to the danger of disease. This being a condition which remains "latent" until an outer cause of diseases affects the subject, e.g., vocational injury or over-exertion of any kind may not only lower personal resistance and create disposition, but may in certain people under some conditions bring into recognition special tendencies of disease."

E. A. Codman has pertinently referred to this entire subject in these words, "My regrets are for wasting so much time on the opinions of a previous generation and not realizing that it was the approval of my pupils, rather than of my masters, that was desirable."

SUMMARY

Attention has been given to:

1. The importance of students' impressions of pathology.

2. Textbooks of pathology being made of greater fundamental importance to students.

3. Failures in medicine, surgery and pathology to obtain ideal and average norms of patients.

4. The fallacy of obtaining greater experience in pathologic rather than normal criteria of mental and physical health with the practical consequences of leaving out man and giving attention only to his disease processes.

5. The variation of the "norm" of health with age and according to internal and external stimuli.

6. Basic preparation for pathology.

7. The essentials of a good textbook on pathology.

8. Some results from a survey of eighteen modern textbooks on pathology.

9. The disciplined organization of subject matter in books.

10. One well known text is arranged for consecutive reading; topical reading being almost impossible. It could be used best for consecutive assignments of 20 to 30 pages from beginning to the end of the book.

11. The interests of students should receive first attention in the course in pathology.

The Association of American Medical Colleges

FRED C. ZAPFFE
Secretary Association of American Medical Colleges,
Chicago, Illinois

On March 20, 1890, the medical faculties of the University of Maryland, College of Physicians and Surgeons, Baltimore Medical College, Baltimore University, Woman's Medical College of Baltimore, and the staff of the Johns Hopkins Hospital, all of Baltimore, Maryland, sent out a "call" for a meeting to be held in Nashville, Tennessee, May 21, 1890, for the "consideration of reforms urgently needed in the system of medical education hitherto in operation in this country" and to "inaugurate a national advance." This call was signed by A. Friedenwald, President, and Eugene F. Cordell, Secretary, "on behalf of the Baltimore Faculties."

The "call" stated further that "subjects most likely to come up for consideration" are the following:

1. Three years course of six months sessions.
2. Graded curriculum.
3. Written and oral examinations.
4. Preliminary examination in English.
5. Laboratory instruction in chemistry, histology and pathology.

Dr. Friedenwald was professor of ophthalmology in the Baltimore Medical College; Dr. Cordell was professor of medicine in the Woman's Medical College. Father and mother of the Association of American Medical Colleges! Very proper!

Representatives of a majority of the regular medical colleges of the United States convened in the senate chamber of the Capitol in the city of Nashville, Tennessee, and, after a full discussion of the propriety of such an organization, and its probable influence on medical education, birth was given to the Association of American Medical Colleges. Dr. Friedenwald was elected temporary chairman and Dr. Winslow Anderson, of San Francisco, was elected temporary secretary. A committee on permanent organization was appointed. Dr. Nathan S. Davis was chairman of this committee. Dr. William Osler of the staff of Johns Hopkins Hospital, and Dr. Perry H. Millard, dean of the University of Minnesota College of Medicine and Surgery, were appointed a Committee on By-Laws and Constitution.

At the first annual meeting of the Association, held in Washington, D. C., May 4, 1891, Dr. N. S. Davis was elected president and Dr. Millard, secretary.

Drs. Osler and Millard submitted the following report, which was adopted:

MINIMUM OF REQUIREMENTS

Rules governing admission of colleges to membership in the Association of American Medical Colleges:

(1) Colleges, members of this Association, shall require a course of graded instruction covering a period of three courses of lectures, of not less than six months duration each, before conferring the degree of M.D. The instruction to cover a period of three years, no two courses to be afforded in the same year.

(2) That both oral and written examinations be required of all students.

(3) That a thorough course of laboratory instruction be maintained in chemistry, histology and pathology.

(4) That a preliminary entrance examination be required as follows:

(a) A composition written in English, of not less than two hundred words.

(b) The translation of easy Latin prose.

(c) An examination in higher arithmetic or the elements of algebra.

(d) An examination in the elements of physics.

(e) It is provided, however, that students, graduates or matriculates of recognized colleges of literature, science and arts, or graduates of normal schools directly supported by the State, be exempt from the provisions of this examination.

(f) Students may be allowed one year to remove a condition in Latin.

At this meeting papers were read by Dr. N. S. Davis, "To What Extent Should Clinical Instruction be Afforded Students in Medicine in the Regular Course." (This paper was reprinted in the Journal of the Association of American Medical Colleges, September, 1936, p. 310); Dr. Victor C. Vaughan, "The Kind and Amount of Laboratory Work Which Should be Required in Our Medical Schools."

The American Academy of Medicine expressed its approval of the efforts of the Association of American Medical Colleges to secure a fitting preliminary examination and a graded course of study for the medical student of the future. The American Medical Association heartily endorsed the efforts of the Association of American Medical Colleges to advance the cause of medical education in the United States, and demanded of the medical colleges the adoption and observance of a standard of requirements which shall in no respect fall below the minimum standard of the College Association. The secretary of the American Medical Association, Dr. Atkinson, was instructed to serve a copy of these resolutions on every medical college of the United States. This was an official action taken by the American Medical Association at its annual meeting held in 1892.

Charter Members

Of the present membership of the Association, consisting of 83 undergraduate, graduate and postgraduate medical schools, 13 were charter members in 1891 and have been continuously in membership for 46 years. Some of these schools are the result of amalgamations of one or more previously existing schools; a few no longer bear the original name. These colleges are:

University of California; University of Colorado; George Washington University; Georgetown University; Howard University; University of Illinois; State University of Iowa; University of Maryland; University of Mich-

igan; Wayne University; St. Louis University; University of Cincinnati and Western Reserve University. Although Johns Hopkins University School of Medicine was not established at that time, it could be regarded as being a charter member because the "staff of the Johns Hopkins Hospital" joined with the medical colleges then existing in Baltimore (5 in number) in calling a meeting of delegates of medical colleges, to be held in Nashville, Tennessee, May 21, 1890, for the purpose of "inaugurating a national advance" in medical education.

Forty-six years is a long time. Much has happened during those years, not only in medical education generally but within the colleges which affiliated themselves for the purpose of effecting the changes in medical education which were felt to be urgently needed. Much history has been made in those forty-six years. Many men have helped to make this history. None are living today, except in memory and through their efforts to improve the status of medical education and medical teaching. The year 1890 may be regarded as being the division point between the old type of medical college and the new type; the difference between lack of organization and organization; profit taking and loss taking; the proprietary and the university type of medical college. There are living today very few men, perhaps only one, who have personal knowledge of what transpired in the "inauguration of a national advance" during the early years of the life of the Association of American Medical Colleges. The work of the Association then and now should not be forgotten because it was fruitful; something was accomplished for the betterment of medical education; many reforms were initiated by the Association but soon abandoned because of lack of adequate financial support. The first annual due was $1; later it was increased to $5 where it remained for ten years. A total annual income of $350 did not permit of any great degree of activity, except on paper and in spirit. Nevertheless, the Association may well be proud of its history, its efforts and its accomplishments.

Some medical colleges now in membership in the Association helped to organize the Association but found it necessary, for obvious reasons, to drop out of membership for a while. All of these colleges came into membership again; hence, while they were charter members, their membership has not been continuous since the time of organization of the Association. Only the thirteen colleges named above have held continuous membership.

A Course in Practical Nutrition for Medical Students

ESTHER S. NELSON

Instructor in Medicine, University of Southern California School of Medicine, Los Angeles, California

Medical students today are instructed in the theories regarding the functions of each of the various constituents of food in metabolism, but little attempt is made to give them a practical knowledge in writing the dietary prescription in quantitative terms of these constituents. For this reason, there is comparatively little use made of the excellent help the dietitian could give in an exact dietary management of patients. There appears to be a real need in medical schools for a course to bridge the gap between theoretical understanding and the practical application of dietary knowledge, and it was a desire to meet this need that prompted the origin of the course herein outlined.

The groups of students are small by request, preferably four and not more than eight, so that the work can be presented informally, and they are met for ten periods of two hours each.

The medical school furnishes gram food scales and diet blanks, so that the student can weigh his food, and record it on the blank and compute it. He is requested to do this for twenty days. In this way he learns what he is eating in terms of grams of protein, fat and carbohydrate when he eats a slice of bread, a piece of meat, a serving of vegetable, or drinks a glass of milk. He eats as his appetite directs and compares the figures from day to day and the menus are criticized for adequacy.

To begin with, a special effort is made to make the student realize that for all adult bodies the fundamental requirements for repair and energy is the same per pound of body weight when they are diseased as they were before the patients became ill, so emphasis is given to presenting an understanding of normal nutrition. The following general outline is used.

THE NORMAL DIET—1. Caloric requirement, how determined and how it is met.

2. Protein requirement, how determined and its relation to other factors in the diet.

3. Ketogenic, antiketogenic ratio, its meaning and importance in every diet.

The above three factors automatically fix the next four:

4. Glucose (G) content of the diet, its determination, significance, amount required and relationship to other factors in the diet.

5. Fatty acid, its calculation.

6. Fat, sources and how determined.

7. Carbohydrate, sources and how determined.

8. Vitamins, a short history of their discovery, sources in food, isolation chemically, functions in the body and effects of their lack.

9. Minerals, calcium, phosphorus, iron, sodium, potassium, sulphur, chlorine and iodine, a short discussion of each as to its functions in the body and its sources.

The modifications of the normal diet to make it fit the various diseases is given in the remaining lectures, the topics of which are as follows:

I. Diseases in which extra calories are needed, fever, hyperthyroidism and undernutrition.

II. Diseases in which total calories are decreased, obesity, cardiac decompensation, increased bloodpressure.

III. Diseases in which parenteral feeding is of importance such as vomiting of pregnancy, and preoperative and postoperative nutrition and critical states. Solutions available and a rationale for their optimal use are discussed.

IV. Diets in which minerals are of special importance such as rickets, tetany, edema, dysthyroidism.

V. Diabetes, adult and juvenile, coma and regular daily diets.

VI. Diseases due to vitamin deficiencies.

VII. Those diseases in which the protein content is of special interest as kidney disease, and juvenile diets.

VIII. Diseases of the gastrointestinal tract, such as peptic ulcer, colitis, constipation and coeliac disease.

A special formula in terms of food constituents required is given for each disease discussed, it being always a modification of the so called normal.

This kind of instruction aims to arm the student with practical knowledge concerning food which can be used to advantage for a vast majority of the patients he meets in his practice, for all patients have one requirement in common, food. Knowledge such as this should obviate the employment of commercial printed forms, such as are in widespread use today, and give the doctor of tomorrow the ability to order or write a diet for any particular patient.

A few interesting observations have been made on the hundreds of diets handed in to me in the past five years and I give them here for I know of no other large group of supposedly normal persons who have weighed their food, taken as appetite dictated.

1. There have been but two exceptions to the rule that he who is thin eats too few calories, and two exceptions to the rule that he who is overweight eats too many.

2. The medical student's diet is usually adequate in protein but inadequate in fruit and vegetables and milk.

3. The carbohydrate content of the menus is much higher than usually ordered in diets, most of the ketogenic-antiketogenic ratios falling between

0.3 and 0.6. This may explain the contention that the diabetic does better on the so called high carbohydrate diet, for the reason that it more nearly approaches the diet normally chosen as evidenced by these weighed diets. A doctor seldom orders a diet with a ketogenic-antiketogenic ratio under 0.8.

4. There was marked variation in menus of the same individual from day to day in every phase of the food requirement.

5. There was often striking improvement in the quality of the diet as the course progressed.

Students have frequently expressed themselves as feeling that a new horizon in the field of therapy has been opened to them and that it is a "bread and butter" course in more ways than one.

Opportunity for bedside application of these principles would be invaluable in giving an actual working knowledge of food and should be included in the curriculum.

The Experiment of Diogenes

Diogenes saw things aright
When he set out in broad daylight
To find, with lantern burning bright,
An honest and an upright man.

Don't think his sally forth to be
An insane thing, a mental spree,
For ever since the world began,
God's greatest work—an honest man.

When light with honesty is mixed,
A great Elixir is produced
That aids in philosophic way
To solve the problem of each day.

The streets of Athens in his time
Were filled with men from every clime,
Acute in intellect, they fought
In mental combat, every thought.

Instead of by experiment,
They wasted time in argument,
When from his tub the cynic came
To show the way to truth and fame.

There are some things we cannot see
With the naked eye unaided,
With better light the facts may be
In their fullest meaning stated.

He envisaged the microscope
That has greatly aided vision,
And likewise the polariscope,
Which has cleared up much confusion.

The atom may with better light
Be compelled to tell its secret,
And the light that shows the ion
May unravel all creation.

The well-known Weber-Fechner law
Was to him unknown in science
Its use will show, if there's a flaw,
Just noticeable difference.

The lie detector, then unknown,
Might have soothed and calmed his mind,
For by its use he could have shown
The difference in human-kind.

His object was to light the way,
To solve each question then in doubt,
With light and honesty one may
Experiment with benefit.

—H. A. McGuigan.

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Officers for 1937-1938

At the forty-eighth annual meeting of the Association of American Medical Colleges, held in San Francisco, California, October 25-27, 1937, the following officers were elected: President, Dr. Alan M. Chesney (Johns Hopkins University); president-elect, Dr. Willard C. Rappleye (Columbia University); vice-president, Dr. Wm. S. Middleton (University of Wisconsin); secretary, Dr. Fred C. Zapffe, Chicago; treasurer, Dr. A. C. Bachmeyer (University of Chicago); members of Executive Council, Dr. Maurice H. Rees (University of Colorado) and Dr. Loren R. Chandler (Stanford University).

Dr. Rees was elected chairman of the Executive Council for 1937-1938.

Syracuse, New York, was selected for the place of holding the 1938 meeting. Time: October 24, 25 and 26.

Committees: Educational Policies: Dr. Frank L. Babbott (Long Island College of Medicine), chairman; Dr. S. Sidney Burwell (Harvard); Dr. L. R. Chandler (Stanford); Dr. John H. Youmans (Vanderbilt); Dr. Ewen M. MacEwen (Iowa).

San Francisco Fair: Dr. Loren R. Chandled (Stanford).

New York Fair: Dr. W. S. Ladd (Cornell).

Advisory Board for Medical Specialties: Dr. W. C. Rappleye (Columbia) and Dr. E. Stanley Ryerson (Toronto).

The attendance at the meeting exceeded expectations considerably. The program met with much favor. All topics discussed were timely and of great concern to medical colleges, to medical education and to physicians in their relations with the public. The symposia on "examinations" and "community aspects of medicine" elicited a great deal of favorable comment and will, no doubt, lead to worthwhile changes in curricula and personal attitudes. Further comment is withheld pending the publication of both symposia in the JOURNAL.

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Environmental Medicine; Medical Sociology

At the thirty-fifth annual meeting of the Association of American Medical Colleges held in Boston in 1925, Dr. Charles P. Emerson, then dean and professor of medicine in Indiana University School of Medicine, read a paper entitled "Environmental Medicine; Medical Sociology" in which he detailed the work done in this school in following up throughout the State of Indiana of persons who had been patients in the Robert W. Long Hospital, Indianapolis. The object of this follow-up was to endeavor to elicit the possible causes, environmental, occupational, social, etc., which, directly or indirectly, had a definite bearing as etiologic factors of the ills for which these persons had been treated in the hospital. This paper is published in full in the Proceedings of the Association for that meeting (p. 13).

Four years later, Dr. W. H. Hattie, then secretary of the Faculty of Medicine of Dalhousie University, published a paper entitled "Teaching Medical Students the Importance of Environment" in the Canadian Public Health Journal (20:541, Nov., 1929), in which he stressed the importance to the medical student of study of underlying causes of diseases connected with the patient's life.

At the forty-eighth annual meeting of the Association of American Medical

Colleges (1937), a symposium on the "Community Aspects of Medicine" was presented in which the importance of such study was stressed. In one of these papers, read by Mr. Ralf Couch, secretary of the University of Oregon Medical School, a plan of instruction was detailed. These three papers are published elsewhere in this issue of the JOURNAL.

It should be pointed out at this time that contrary to general belief, the medical colleges have been keenly aware of the importance of such studies for a long time; that they have not been unmindful of their duty although lacking in opportunities to make such studies. With the passing of the years, it has been made possible to carry on this work and some medical colleges have been able to include home studies in their curriculum. Doubtless, soon many medical colleges will follow this lead and provide opportunities for their students to do this follow-up work which has assumed gigantic proportions as a feature of medical education. It is well known that many factors affecting the life of every individual have an important bearing on his state of health and that it is not sufficient merely to treat him for his disease. The factors underlying the possible development of the disease must also be considered to the end that a full recovery from the disease may be made possible and to prevent its recurrence. Cognizance of the etiologic importance of environment, social status, habits, economic status and other factors of like nature must lead to further careful study and a consequent lessening of morbidity and mortality. The physician must be prepared to serve as a "curer of ills" in every sense of the term and his education in that direction must be begun in the medical college.

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Teacher Placement Bureau

At the 1937 annual meeting of the Association of American Medical Colleges, the establishment of a Teacher Placement Bureau was authorized. It was the opinion of the delegates assembled that the Association is in a position to be of assistance to medical colleges seeking teachers and to teachers who wish to make a change because of information regarding teachers now on file in the office of the Association. The service is to be free.

For many years, the secretary has officiated as a placement officer; now the service will be one of the activities of the Association. It must be understood that the Bureau can act only in an advisory capacity and that confidential information will be respected as it should be. However, the possession of this information will make it possible to give assistance which is not available in any other way.

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Public Speaking

Every one knows that physicians are, on the whole, not purists in the use of the English language. The matter has been discussed often but little has been done to overcome this inadequacy. One medical college is making an effort to do something to make students more conscious of this, possible, defect, and to make provision to overcome it.

Indiana University School of Medicine now has a Committee on Public Speaking which is concerning itself with devising ways and means through which the written and oral English of its students and interns can be improved and to produce physicians who will be able to write and speak properly before assemblies of physicians and laymen. The Committee has been at work for about six months. Thus far it has concerned itself with the advisability and the practicability of having a course in public speaking given at some time during the medical course. After several discussions, it seemed advisable to this committee to take the liberty of widening the scope of its inquiry and to make the recommendation that some course of lectures and instructions be given which would have the objective of encouraging and promoting the better use of the English

language among the candidates for the M.D. degree. Such a course should include training in the use of both the written word and the spoken word.

It has been suggested that a course of lectures and practical work in English composition and in reading aloud should form the basis of such a course, but that credit might be withheld until the senior year; that during the intervening years, the student's mind should be kept alert in this field by grading recitations and written work partly for their correctness in the use of English grammar and rhetoric. The students should be made to feel that their use of English is being constantly scrutinized. The factulty of the medical school should be stimulated to this purpose by themselves becoming "English-minded," and inviting free criticsm among themselves.

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Freshman Enrolment for 1937-1938

A check-up of the enrolment for the 1937-1938 session in the medical colleges of the United States shows a considerable drop from the enrolment for 1936-1937. At the end of that session, 6072 freshmen were reported on, although the number of enrolment blanks received for that class was only 5,906. Deducting withdrawals early in the session and adding repeaters, this figure was increased by 166.

Although a few repeaters fill in an enrolment blank for the repeating year, the majority do not, hence the actual number of repeaters is not known until at the end of the year when accomplishment reports are received as these do include all repeaters. One college enters a small class in January, usually about 20 students. Another college, on the quarter system, enters classes four times a year; therefore, the number to be admitted at the succeeding three quarters (January, April, July, 1938) can only be estimated on the basis of admissions in previous years.

The enrolment for the 1937-1938 session, including a small number of withdrawals already reported, probably will not exceed 5,850 as against 6,072 for the 1936-1937 session, a reduction of approximately 3.5 per cent. This percentage will be slightly greater if the number of repeaters is less than it was a year ago. The number of enrolment blanks received for the 1937-1938 session is 5,649.

It is significant of an upward trend in preparation for the study of medicine that only about 6 per cent of the present freshman class came with less than 3 years of college work, and of these, only a few, not more than 2 per cent, had the minimum, two years-60 hours, of preparation. The remainder had from 70 to 80 hours of credit. The number with three or more years of preparation, but not possessed of a degree, remains about the same as in previous years, 35 per cent. But the number of those holding a degree has increased to nearly 60 per cent, not quite one-third of all entrants. The trend toward more preparation for the study of medicine has grown stronger during the past ten or more years and it would seem justifiable to assume that soon no one will enter on the study of medicine who has not had at least three years of preparation. Medical education is striding forward.

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Foreign Exchange Students

In previous issues of the JOURNAL, the matter of student exchange with foreign universities medical schools has been presented briefly. As stated, the universities of Germany and Austria are very much interested in such an exchange. In Germany, a special commission has been appointed to take charge of this work. Germany offers board, room and tuition to every exchange student. In the United States, the problem has not yet reached such a solution. However, an underwriting of such exchanges is being made by the Phi Delta Theta fraternity. This fraternity has appointed a committee on foreign exchange of students, of which Professor Guenther H. Grueninger, of DePauw

University, Greencastle, Indiana, is chairman. The fraternity meets all financial obligations of the exchange foreign students who are attending medical colleges in the United States but, because of limited funds, the service cannot be extended widely. The main problem confronting the plan is that of meeting tuition fees. These fees are waived for foreign exchange students in Germany, but not in the United States. Inasmuch as the number of such students always will remain small, remission of tuition fees by any medical college is not an item of great moment. The only expense to these students is that of travel. Therefore, it is possible that any American student who would like to have the experience of working for one or more semesters in a German medical school might be willing to "swap" tuition fees, or, at least, a portion of them, as he is not obliged to pay any tuition fee abroad. He might deduct his travel expenses from the amount he would spend here for fees and deposit the remainder to the credit of his "exchange," the medical college assuming the remainder. At least, it is something to consider. At the present time, two of the Phi Delta Theta exchanges are medical students, one at Washington University School of Medicine, the other at the University of Cincinnati College of Medicine.

Kappa Kappa Gamma sorority is also interested in this problem. Local chapters will provide free room and board for a foreign medical exchange student (female) but the sorority finds it difficult to surmount the hurdle of tuition fees.

The Institute of International Education has done much to promote foreign student exchange in virtually every foreign country, although it has placed, in the main, only graduate students and none in medicine. This work is one of the major activities of the Institute and has proven to be very much worth while. If that is true for education in general it should prove equally true for medicine. Inasmuch as the Association of American Medical Colleges already is in close touch with the medical colleges of a number of foreign countries, and has considerable information regarding the work done in these colleges, it should take the leadership in promoting and carrying on foreign student exchanges not only for undergraduates but also for graduates who are desirous of working in a foreign country for many and obvious reasons. The facilities for such study are there; the universities and their instructors are willing to do all in their power to promote better medical education in cooperation with the authorities in this field of activity in other countries. As a matter of fact, they offer better and greater opportunities for study to foreign students than they do to their own students because of the difference in methods and curricula.

Opportunities are also offered to serve an internship in a foreign country, under the sponsorship or guardianship of a well known medical man. Some foreign medical graduates are eager to serve an internship in the United States for the purpose of observing differences in practice and methods. They do not wish to remain here but will return to their native country after their intern service has expired. They now go to England, Belgium, South Africa and other countries for this service; in fact, graduates are urged to get some of their experience and education elsewhere than at home in the belief that it has great value. It has. That fact has always been recognized as being true. Nothing is as wholesome as seeing how the other fellow does things.

College News

Syracuse University
College of Medicine

November 22, 1937, the new building of the College was dedicated with appropriate ceremonies. Speakers were Drs. Henry A. Christian, professor of physics, Harvard Medical School; E. L. Godfrey, New York State Health Commissioner, and Ray Lyman Wilbur, president Stanford University.

The building was designed entirely by the faculty of the College with consideration for their needs, hence is different from other similar buildings, and in some respects unique. Aside from the fact that it is a beautiful building, both outside and inside, on the colonial style, with two wings extending backward and an exquisite auditorium between, it is unique in that the anatomical laboratory, in fact the whole anatomical department, are situated in the basement floor. The laboratory consists of three rooms, well lighted by means of special overhead lights, and can be cooled and heated as needed. The first floor houses offices, faculty rooms and the department of pathology in one wing, the library in the other wing. The second and third floors house the departments of physiology, biochemistry and pharmacology. Every department has available departmental and staff offices and research rooms. The entire fourth floor, not visible from the outside, is given over to the housing of animals, rooms for their care, including a diet kitchen, operating rooms and everything else needed for research, including special rooms.

The building is situated on what can be termed the medical campus or center —the Memorial Hospital; the Psychiatric Hospital, the City Hospital for Communicable Diseases. It is planned to erect some time another teaching hospital on this campus and such other adjuncts as will complete the Medical Center.

Indiana University
School of Medicine

November 20, 1937, the new medical building erected on the campus of the University at Bloomington was dedicated with fitting ceremonies. This building was erected at a cost of about $475,000. It houses the departments of anatomy and physiology. Architecturally it is a beautiful building and one well adapted for the purposes for which it is intended. All the equipment is new. Ample space and equipment for research is provided; the library is a gem.

The new Clinic Building being erected on the Indianapolis campus is nearing completion. It is contiguous to and connected with the Robert W. Long Hospital. It will provide many additional facilities for use by the medical school as a part of the teaching program.

Indiana University School of Medicine now has on its Indianapolis campus four hospitals which it controls and also the City Hospital in which commendable teaching opportunities under the control of the faculty are available. The James Whitcomb Riley Hospital for Children is a notable and well known hospital and with the Convalescent Hospital for Children, the Robert W. Long Hospital and the Coleman Hospital give the medical school 500 teaching beds under its immediate control.

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University of Minnesota
Medical School

The Board of Regents of the University of Minnesota established in the past summer in the department of surgery the teaching and hospital division of neurosurgery. Dr. William T. Peyton, associate professor of surgery, has been made director of the new division of surgery. Other members of the staff are: Dr. Arthur A. Zierold, professor;

Dr. J. Frank Corbett, clinical professor; Dr. W. P. Ritchie, clinical assistant; and Dr. George R. Dunn, clinical assistant professor.

Dr. Ancel Keys has been transferred from the Department of Physiological Chemistry in the Mayo Foundation of the University of Minnesota Graduate School to an Associate Professorship in the Department of Physiology of the Medical School. Dr. Keys will develop a teaching and research program in physiology and school health for students majoring in Physical Education. This program will provide an opportunity for graduate work in these fields and for research in the physiology of normal activity.

Dr. Wesley W. Spink has been appointed Assistant Professor of Medicine. He formerly held an appointment in Medicine at Harvard University Medical School and was Resident Physician at the Thorndike Memorial Laboratory.

Dr. Burtrum C. Schiele has been appointed Assistant Professor in the Division of Nervous and Mental Diseases, Department of Medicine, coming from the Payne Whitney Clinic and the Cornell University Medical School where he held an Instructorship in Psychiatry.

Miss Margaret Arnstein, who held an appointment as Consultant Nurse, Division of Communicable Diseases, New York State Department of Health, has been appointed Assistant Professor of Preventive Medicine and Public Health and Supervisor of Public Health Nursing, to succeed Miss Eula Butzerin who has accepted a similar appointment at the University of Chicago.

Dr. Leo T. Samuels has been appointed Assistant Professor of Physiologic Chemistry, coming from the University of Southern California where he held an Instructorship in the Department of Pharmacology.

A series of eight Medical Institutes under the general direction of Dr. W. A. O'Brien, Associate Professor of Pathology and Preventive Medicine and Public Health, will be offered during 1937-38 through the Center for Continuation Study. The first Institute on Disease of the Heart opened Monday, October 4, with a registration of thirty-seven physicians from various parts of Minnesota and the Dakotas.

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Wayne University
College of Medicine

Approximately twenty teaching fellowships, about equally divided between the basic medical science departments and the clinical departments, will be made available. Duration of service, 12 months; remuneration, $1,200; renewable for three years in the clinical branches and two years in the basic science branches. Fellows are expected to be candidates for the master's degree. Applications for these fellowships must be made to the dean, Dr. Raymond B. Allen.

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Duke University
School of Medicine

Faculty appointments: Dr. Barnes Woodhall, assistant professor of neurosurgery; Dr. Lenox D. Baker, instructor in surgery, and Dr. Ross C. MacCardle, instructor in anatomy.

September 30th, the School of Medicine commenced its autumn quarter with a total of 245 students enrolled.

Dr. Alfred R. Shands, Jr., associate professor of surgery, in charge of orthopedics, has been appointed Medical Director of the Nemours Foundation for the Care and Treatment of Crippled Children.

The following clinics were given recently by visiting lecturers:

October 19, Dr. M. V. Ziegler, Senior Surgeon, United States Public Health Service; subject, "The Opportunities in Public Health Work."

November 11, Dr. Frank E. Adair, Executive Officer of Memorial Hospital, New York City; subject, "Various Aspects of Neoplasms."

November 17, Dr. R. Finley Gayle,

Jr., Associate Professor of Mental and Nervous Diseases, Medical College of Virginia; subject, "Selective Human Sterilization."

The symposium on the Diseases of Women and Children, held November 11, 12 and 13, was attended by 346 members of the medical profession from this and other states.

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University of California
Medical School

William Deamer, 1927, is on sabbatical leave of absence from his duties as assistant professor of pediatrics. He will investigate newer methods of metabolic study in infancts and children under the direction of Dr. S. Z. Levine, professor of pediatrics at Cornell University Medical College.

Amos Christie, 1929, has been appointed assistant professor of pediatrics. He has spent almost two years at the Harriet Lane Hospital in Baltimore doing special work for the United States Children's Bureau.

Hamilton H. Anderson, 1931, who has been assistant clinical professor of pharmacology since 1934, has accepted an appointment on the staff of the Council on Medical Education and Hospitals of the American Medical Association. His duties will consist chiefly in surveying facilities for graduate medical instruction in medical schools and hospitals in this country.

About a year ago, Dr. Fred H. Kruse, 1915, historian of the California Medical Alumni Association, sent questionnaires to almost 1,300 graduates. Replies were received from about half that number. In the eight years, 1864 to 1872, before Toland Medical College was taken over by the University of California, 52 men graduated. So far as is known, only one of these, Dr. Joseph P. Widney, 1866, is living. Between 1872 and 1936, there have been 1,616 graduates of whom 1,237 are living. From 1872 to 1875, there were from three to nine students in each class, and from 1876 to 1920, from 15 to 25. Since 1921, between 40 and 60 graduated each year. Of the 1,237 living graduates, 184 are women. The first woman, Dr. Lucy Wanzer, now deceased, graduated in 1876. In the past ten years, 17 per cent of the graduates have been women. Forty per cent are in general practice; 15 per cent in general surgery, 10 per cent in internal medicine, and 35 per cent in obstetrics and gynecology, pediatrics, surgical specialties and other fields. One hundred and fifty-two are connected with a medical school and doing some medical teaching; 60 have institutional positions; 18 are in public health work and 28 in the Army, Navy or other government service.

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Western Reserve University
School of Medicine

October 29, 1937, a bronze tablet was dedicated in memory of Mr. John L. Woods who, in 1886, gave a building which was occupied until 1924, and in 1892 gave $125,000 for endowment. This endowment was one of the first west of the Alleghenies for medical education, and Mr. Woods' gifts, which for the building and for the endowment totaled $300,000, were the largest total of gifts by an individual up to that time for medical education.

The Commonwealth Fund has made a grant of $10,857 annually for a three-year period for the research of Dr. Joseph M. Hayman, Jr., associate professor of medicine, on chronic nephritis.

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New York University
College of Medicine

Dr. Currier McEwen has been appointed dean to succeed the late Dr. John Wyckoff.

Promotions: Dr. Karl Murdock Bowman, from professor of clinical psychiatry to professor of psychiatry to fill the position left vacant by the retirement of Dr. Menas S. Gregory who has become professor emeritus. Dr. Joseph Edward Connery, from associate professor of clinical pathology to professor of

clinical pathology to fill the position left vacant by the recent death of Dr. Arthur R. Mandel. Dr. Clarence E. de la Chapelle, assistant professor of medicine, has been appointed acting chairman of the department of medicine pending the filling of the professorship. Dr. de la Chapelle is also serving as acting director of the Third Medical Division at Bellevue Hospital. Dr. Emery A. Rovenstine, from assistant professor of surgery to professor of anesthesia in the department of surgery. Dr. Lauretta Bender, clinical professor of psychiatry; Dr. Frank J. Curran, assistant clinical professor of psychiatry; Dr. Joseph Goldstein, assistant clinical professor of pediatrics.

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University of Rochester
School of Medicine

Through the generosity of the George Davis Bivin Foundation of Cleveland, Ohio, a grant of $500 has been made to the Division of Psychiatry. The money is to underwrite a special study of adopted children who are rebelling against their adoption and who have developed personality changes.

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Vanderbilt University
School of Medicine

Promotions: Dr. Sam L. Clark, professor of anatomy; Dr. Alfred Blalock, professor of surgery; Dr. Frank H. Luton, associate professor of psychiatry; Dr. Charles M. Hamilton, assistant professor of clinical dermatology; Dr. J. Pilmoor Gilbert, instructor in clinical psychiatry; Dr. Leon M. Lanier, instructor in clinical dermatology; Dr. J. Pilmoor Gilbert, instructor in clinical psychiatry; Dr. Leon M. Lanier, instructor in clinical dermatology; Dr. Edgar Jones, Dr. William D. Strayhorn and Dr. Clarence S. Thomas, instructor in clinical medicine; Dr. William deGuitierrez Mahoney, assistant professor of neurology.

Dr. Albert Szent-Györgyi, professor of medical chemistry in the Royal Hungarian Franz Joseph's University and Director of the Institute for Medical Chemistry of that University, has been chosen as the Abraham Flexner Lecturer for the session 1938-1939. Dr. Györgyi is regarded as being the most stimulating medical investigator in Hungary at present. The work for which he has gained the greatest eminence concerns the vitamins. In 1932, he was able to identify vitamin C with hexuronic acid derived from adrenal cortex and from cabbage. In 1933, he prepared large quantities of abcorbic acid from paprika, and obtained a crystalline monoacetone derivative. He has also been interested in the widespread subclinical vitamin C deficiency in man. More recently (1936) he has described a produce possibly a new vitamin (vitamin P) which is effective in the treatment of hemorrhagic purpura. Dr. Györgyi was awarded the Nobel Prize in Medicine for 1937.

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University of Illinois
College of Medicine

During the past year the college has received, by gift, two notable additions to its Medical Library. A valuable collection of about 1,500 selected books, also numerous separates and reports in the field of dermatology, was presented by Dr. William Allen Pusey. This collection is available for the use of students and physicians.

The other gift came from Dr. Arthur E. Hertzler, of Halstead, Kansas. This collection consists of about 7,000 volumes and 8,000 separates, largely in the field of surgery and surgical pathology.

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University of Texas
School of Medicine

Drs. Frances J. L. Blasingame, assistant professor of anatomy; John F. Pilcher, associate professor of pathology, and J. John Westra, Jr., Ph.D., assistant professor of physiology, resigned. Dr. Samuel R. Snodgrass, Franklin, Ind., has been appointed assistant professor of neurosurgery.

Loyola University
School of Medicine

New appointments: Dr. William R. Cubbins, professor and director of a new division of bone and joint surgery; Julius Sendroy, Jr., Ph.D., professor and head of a new department of experimental medicine.

Dr. Henry Schmitz, head of the department of gynecology and obstetrics to succeed Dr. Bertha Van Hoosen, who becomes professor emeritus; Dr. Thomas F. Finnegan, professor of urology; Dr. Robert E. Cummings, assistant clinical professor in pediatrics; Dr. H. William Elghammer, clinical professor of pediatrics; Dr. William J. Pickett, associate clinical professor of surgery.

Mercy Hospital becomes the University Hospital. Plans are under way to enlarge outpatient facilities including erection of a new building.

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University of Cincinnati
College of Medicine

Dean Friedlander has been appointed as a member of an advisory committee to the United States Public Health Service to consider the problem of reducing pneumonia mortality.

Dr. Clare R. Rittershofer was advanced in rank from Instructor to Assistant Professor of Pediatrics.

Miss Rebecca Scarborough, one of the last of the aristocratic pioneer family of that name in East Walnut Hills, died in late October, and among other requests the College of Medicine will receive $20,000. In compliance with specifications in the will, the sum is to be divided equally between the departments of medicine and surgery.

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University of Michigan
School of Medicine

Dr. Charles W. Edmunds, professor of materia medica and therapeutics, has been appointed to the executive board of the Horace H. Rackham School of Graduate Studies.

University of North Carolina
School of Medicine

Appointments: Dr. W. Reece Berryhill, assistant dean and associate professor of medicine, and physician in chief to the University Infirmary; Dr. James C. Andrews, professor of biological chemistry, and head of department; Dr. Harold W. Brown, professor of public health; Dr. Harold D. Gotass, assistant professor of public health; Dr. Russel L. Holman, assistant professor of pathology.

As a result of an appropriation of $226,500 from the state legislature, a PWA grant has been allocated to The University of North Carolina, making a total of $400,000, which is to be used for two purposes: first, an addition to the University Infirmary, where a charity clinic will be established for the purpose of teaching physical diagnosis; second, the erection of a modern laboratories building for use by the medical school.

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University of Tennessee

Three fellowships in radiology have been established. Fellows will receive their practical instruction in the department of radiology of the John Gaston Hospital, the municipal hospital of the City of Memphis. Remuneration of fellows will be: for the first year, maintenance and $400; for the second vear, maintenance and $600; for the third year, maintenance and $1200.

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Tulane University of Louisiana

Plans for expansion of facilities of graduate medical instruction, to become effective at the beginning of the 1937-1938 term, have been completed.

All graduate medical instruction will be conducted under the general supervision of Dr. Hiram W. Kostmayer, as director of the graduate medical studies in the school of medicine, and Dr. Maxwell Edward Lapham as director of the graduate medical extension division. All

graduate courses will be under the immediate supervision and direction of the regular officers of administration, and the facilities of the several departments of the school of medicine will be available.

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Tufts College Medical School

Tufts is engaged in a campaign to raise $2,000,000 to be used in the development of the school and the erection of a new building for which plans have already been drawn. It is proposed to erect a six story building of brick and stone with a 225 feet frontage. The first floor will be given over to administration offices, library and students lounge. Physiology and pharmacology will occupy the second floor; pathology and bacteriology, the third; biochemistry and clinical medicine, the fourth; anatomy and histology, the fifth; the anatomy museum, the sixth floor. Each floor will have a lecture room, research laboratories and departmental library. It is estimated that the new building will cost about $750,000.

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University of South Dakota
School of Medicine

Einar Leifson, Ph.D., formerly instructor in bacteriology at Johns Hopkins University School of Medicine, Baltimore, has been appointed professor of bacteriology, succeeding Charles A. Hunter, Ph.D. William H. Waller, Ph.D., recently instructor in anatomy at George Washington University Medical School, Washington, D. C., is professor of anatomy, succeeding C. M. MacFall, Ph.D., and John T. Manter, Ph.D., recently at Columbia University, New York, is assistant professor of anatomy. H. Morrow Sweeney, Ph.D., formerly instructor in physiology, Tulane University of Louisiana School of Medicine, New Orleans, is head of the department and professor of physiology, succeeding Harry V. Atkinson, Ph.D., who is now professor of pharmacology and materia medica.

Woman's Medical College
of Pennsylvania

Dr. Consuelo Bernardino, of Santo Domingo, Latin American Fellow of the American Association of University Women, is enrolled as a graduate student of gynecology for the year 1937-1938.

Dr. Catharine MacFarlane, professor of gynecology, has been appointed a member of the Cancer Commission of the Medical Society of the State of Pennsylvania.

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Temple University
School of Medicine

Dr. William N. Parkinson, dean of the School of Medicine and medical director of the Temple University Hospital, was appointed vice president of Temple University.

Dr. O. S. English, clinical professor of psychiatry, was appointed professor of psychiatry.

Dr. Dean A. Collins, of the department of physiology of the University of Minnesota, was appointed assistant professor of physiology.

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University of Georgia
School of Medicine

The following resolution has been sent to every college and university in the State of Georgia: A study of the records of all medical schools made by the Association of American Medical Colleges reveals that students with a broad liberal preparation are better qualified to study medicine than those with a narrow foundation. The Committee on Admissions of the University of Georgia School of Medicine, concurring in this opinion, recommends that the faculty advisors earnestly try to dissuade premedical students from taking any course whose content is covered in the medical college. Such courses as histology, vertebrate embryology, bacteriology, physiology, biochemistry and abnormal psychology are of value to stu-

dents of liberal arts but should not appear on the transcripts of the applicants to medical schools. The premedical student should be broadly prepared in biology, physics, chemistry, mathematics (particularly statistical methods), social science, literature, languages and the humanities in general.

The new laboratory and classroom building, named the Dugas Building in honor of Dr. Louis Alexander Dugas, one of the founders and early teachers and the discoverer of Dugas' Sign, was formally dedicated on Thursday, October 14, 1937. The Regents of the University System of Georgia were present for the exercises and held their regular monthly meeting in the new building afterward.

The exercises were featured by a sketch of the life of Dr. Dugas by Dr. Eugene E. Murphey, clinical professor of medicine, and an address by Chancellor S. V. Sanford.

The building houses the departments of biochemistry, pharmacology and physiology, and contains an auditorium with a seating capacity of 366. This building was constructed with funds appropriated by the Regents of the University System of Georgia, plus a 45 per cent grant from the Public Works Administration. The cost of the new building and new equipment was about $100,000.00.

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Wake Forest College
School of Medical Sciences

Mr. L. L. Chastain has been added to the department of physiology. Dr. Robert P. Morehead has returned to resume his teaching work.

The school has extended the privileges of its library to the physicians of North Carolina. Books and periodicals will be loaned for two weeks at cost of wrapping and mailing.

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University of Alabama
School of Medicine

Faculty appointments: Dr. Philip B. Armstrong, director of the department of anatomy; Dr. John M. Bruhn and Dr. John E. Davis, respectively, assistant professor and instructor in the department of physiology and pharmacology; Dr. Herbert K. Fidler, and Dr. Oscar Christianson, respectively, assistant professor and instructor in bacteriology and pathology; Dr. Elliott Ursin, university physician and instructor in medicine and physical diagnosis; Dr. Benjamin Miller, associate university physician and instructor in physiological chemistry and physical diagnosis. Drs. Samuel T. Hardin and Luther Davis, Jr., will give part time service in the teaching of obstetrics and physical diagnosis.

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Medical College of Virginia

Founder's Day of the 100th session was celebrated December 7, 1937. Sir Austin H. Clark, director of press service of the American Association for the Advancement of Science, spoke on "Science in Colonial Virginia."

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University of Oklahoma
School of Medicine

Dr. Paul Crenshaw Colonna, of New York City, professor of orthopedic surgery and orthopedic surgeon of the Crippled Children's Hospital, has been appointed professor of orthopedic surgery.

General News

International Congress for Postgraduate and Graduate Education

This congress was held in Berlin, Germany, August 21-25, 1937. Twenty-five countries were represented by delegates. It was decided to establish an International Academy for Postgraduate and Graduate Education of Physicians. Professor Borst, director of the Institute of Pathology in Munich, is president of the 1938 congress.

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Mississippi Valley Medical Society Award

The Mississippi Valley Medical Society offers a cash prize of $100, a gold medal and a certificate of award for the best unpublished essay on a subject of interest and practical value to the general practitioner of medicine. Entrants must be ethical licensed physicians, residents of the United States and graduates of approved medical schools. The winner will be invited to present his contribution before the next annual meeting of the Mississippi Valley Medical Society (September 28, 29, 30, 1938), the society reserving the exclusive right to first publish the essay in its official publication—the Radiologic Review and Mississippi Valley Medical Journal. All contributions shall not exceed 5000 words, be typewritten in English in manuscript form, submitted in five copies, and must be received not later than May 15, 1938. Further details may be secured from Harold Swanberg, M.D., secretary, 209-224 W. C. U. Building, Quincy, Ill.

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Mary Putnam Jacobi Fellowship

The Women's Medical Association of the City of New York offers the Mary Putnam Jacobi Fellowship of $1,000 for one year; available for postgraduate work in the medical sciences.

The fellowship is open to any woman graduate of an approved medical school. Each candidate must be endorsed by the head of the department in which her previous work has been done. The recipient of the fellowship must give full time to the study of her problem and this study should be made preferably abroad.

The recipient of the fellowship, if not resident in the United States, should make the study preferably in the United States.

Applications for 1938-1939 should be filed with the chairman of the committee, Dr. Annie S. Daniel, on or before April 1, 1939, and must be accompanied by statements as to health, educational qualifications, and proposed problem for investigation.

A report for publication will be required at the completion of the fellowship.

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Finney-Howell Research Foundation

Fellowships carrying an annual stipend of $2,000 will be awarded each year at the annnual meeting of the board of directors of the Finney-Howell Research Foundation, the second Wednesday of March, beginning in 1938. The awards will be for one year with the possibility of renewal up to three years. When deemed necessary by the board, special grants of limited sums may be made to support the work carried on under a fellowship. Applications must be on file at the office of the secretary of the foundation, Dr. William A. Fisher, Medical and Chirurgical Faculty Building, 1211 Cathedral Street, Baltimore, on or before the first day of February. The Finney-Howell Research Foundation was created under the will of the late Dr. George Walker, Baltimore, to support "research work into the cause or causes and the treatment of

cancer." The will directed that the surplus income from the assets of the foundation together with the principal sum should be expended within a period of ten years to support a number of fellowships in cancer research, each with an annual stipend of $2,000 "in such universities, laboratories or other institutions, wherever situated, as may be approved by the board of directors."

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Louis and Henrietta Blaustein Foundation

A foundation endowed with $500,000 will be created for charitable, educational or research purposes, under the will of the late Louis Blaustein, Baltimore. It will be known as the Louis and Henrietta Blaustein Foundation. The income from the fund may be used or its principal; it may go for medical or sociological research, education, recreation or any other benevolent purpose; it may be spent in Baltimore or elsewhere.

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Judson Daland Foundation for Research in Medicine

The late Dr. Judson Daland, of Philadelphia, left the bulk of his estate to the American Philosophical Society to endow "The Judson Daland Foundation for Research in Clinical Medicine." Ten per cent of the income is to be added to the principal each year. Dr. Charles A. E. Codman received first choice of Dr. Daland's medical books and papers and the Philadelphia County Medical Society the second choice. The society also received a bronze bust of Dante. An inventory filed October 4 listed the estate at $359,507, exclusive of realty.

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Fellowships in Psychiatry

The National Committee for Mental Hygiene has available a limited number of fellowships for training in extramural psychiatry, provided by the Commonwealth Fund and other sources. Fellows will be assigned for one or two years to a selected child guidance clinic, the term and plan of the fellowship to be determined by the peculiar needs of the fellows. Candidates for fellowship awards should have had at least two years of psychiatry in an approved mental hospital service, in addition to other qualities fitting them for extramural service. Requests for further information about these fellowships and applications therefor, should be addressed to Dr. George S. Stevenson, The National Committee for Mental Hygiene, room 822, 50 West Fiftieth Street, New York, N. Y.

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Joseph A. Capps Prize

The Institute of Medicine of Chicago offers the Joseph A. Capps Prize of $500 for the most meritorious investigation in medicine or in the specialties of medicine. The investigation may be also in the fundamental sciences, provided the work has a definite bearing on some medical problem. Competition is open to graduates of Chicago medical schools who completed their internship in 1935, or who completed one year of laboratory work in 1936. The winner of the prize will be expected to present the results of his investigation before the Institute at some meeting in 1938, the time to be designated later. Manuscripts must be submitted to the secretary of the Institute, 86 East Randolph Street, Chicago, not later than December 31.

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Study of Cancer

Mr. William H. Donner who in 1932 endowed the International Cancer Research Foundation with a gift of $2,000,000, has given to the University of Pennsylvania $200,000 to establish a new radiologic department in the University Hospital for the study of malignant diseases, it was announced October 30. Mr. Donner made the gift in memory of a son who died in 1931. A new building will be erected for the department, the New York Times reported.

Chair of Social Medicine in Medical School

The municipal council of Paris has arranged with the Faculté de médecine to organize a department of social medicine. This is necessitated by the rapid development of the laws of social aid and the widespread application of public welfare movements and social insurance in this country. An appropriation was made by the council for the salary of the head of this newly created teaching department. In a book published in 1925 as a part of an encyclopedia of clinical medicine, Dr. Louis Guinon stated that social medicine includes social hygiene and the legislation incident thereto, as well as a study of the sociological, economic, political and pedagogic factors which permits its organization and extension in the world. In enumerating the various branches of medicine that would be included, it is evident that no sharp line of demarcation was made by Guinon between social medicine and hygiene on the one hand and general medicine on the other. Hence according to Dr. Noir, in recent editorial in the *Concours médical,* a great deal of study will be necessary to define the scope of teaching of the newly created chair of social medicine. The latter ought only to take up legislation on the subject and its practical application.—PARIS LETTER: *J. A. M.A.,* 109; 1289 (Oct. 16), 1937.

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Social Hygiene Day

National Social Hygiene Day, the second observance of which has been set for February 2, 1938, by the American Social Hygiene Association, marks the high point in the year round effort to gain popular interest and support for the activities of the health authorities and the medical profession in dealing with syphilis and gonorrhea. Interested official and voluntary agencies concentrate their efforts at this time on giving the subject the widest possible pulibcity, by arranging for meetings of interested groups, press stories and comment, appropriate radio broadcasts, and the like.

The first National Social Hygiene Day, February 3, 1937, was an immediate success in accomplishing its purpose; it was marked by hundreds of meetings held throughout the country. More than a thousand newspaper clippings coming from all parts of the country testify to its uniformly favorable press.

"Stamp Out Syphilis—Enemy of Youth" is the slogan for the 1938 Social Hygiene Day meetings. Particular emphasis will be laid on the control of syphilis among the twenty to thirty year age group, in which more than half of all new infections occur.

Suggestions for meetings and practical community programs may be obtained from the American Social Hygiene Association, 50 West 50th Street, New York City. The Association will be glad to supply interested persons and groups with materials, such as exhibits, films, and literature.

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Problems of Medical Study

The danger of the curriculum for the ordinary medical student becoming overloaded was commented on by Dr. W. R. Halliday, Principal of King's College, London, in the inaugural address to the students of the St. George's Hospital Medical School recently.

After referring to the modern complexity and multiplicity of the specialties of the clinical period of study, he said that there was a school of thought which was working in the direction of teaching chemistry, botany, zoology, and physics specially adapted to the brains and requirements of medical students. That was wrong, and he would like those elements of science to be kept disinterested. It was important that the future medico should get a glimmering of what these sciences were really about, irrespective of the art of healing, and it was important if he was later going to be a specialist in certain lines that he should have sufficient general grounding to be able to resume and to carry further his studies in the relevant science. He could

not help suspecting, for example, that the therapeutic use of radium would have made a progress more rapid and in a much more certain direction had there been a larger sufficiency of experimenters who had, or had been in a position to gain, a real knowledge of pure physics.

Anatomy and physiology presented no problem. Obviously any doctor must be adequately equipped with them. Then came the third M.B. and the multiplication of specialties, and the complexity and manifold character of modern mechanical inventions. Was the prospective general practitioner to be expected to master every possible method of treatment in the time? That was the problem which sooner or later had to be faced, for as medical science advanced and the specialists added to our knowledge the subjects would multiply still further. To add another year to the medical curriculum was surely not a practical proposition.

On the other hand, to try to teach too many subjects in a given time was to have them all imperfectly mastered. It was not really a good plan to set up a standard which involved knowing less and less about more and more.

Luckily, he was absolved by his ignorance from giving specific advice, but he was sure that some at least of his audience would consider with sympathy the view that there was a real danger of the medical curriculum for the ordinary student becoming overcrowded.

It was not the sole object of a hospital medical school to turn out general practitioners. In fact, a medical school in which the advance of specialist knowledge was not being steadfastly and enthusiastically pursued would not be likely even to turn out good general practitioners. Every doctor nowadays, though he might not himself be a researcher, must know what research was about, and indeed the indirect and impalpable stimulus of living in the atmosphere of a school in which knowledge was being advanced was a far more potent educational influence on the ordinary man than was often realized.

Fellowship at
University of Kiel

A fellowship for advanced study and research in medicine is offered by the Physiological Institute at the University of Kiel to an American physician for the period from April 1, 1938 to October 1, 1938. Preference will be given to candidates wishing to work on problems connected with blood circulation or related fields. The fellowship is offered on condition that a similar place is offered by an American medical school to a member of the staff of the Physiological Institute who wishes to spend six months in the United States working in the field of internal medicine. For further information address this Institute. Applications must be filed not later than February 1, 1938.

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Patterson Institute
for Cancer Research

A fund of more than $500,000 has been established for cancer research and investigation, the income of which will be used in Passavant Hospital, Chicago. The institute will be known as the Patterson Institute for Cancer Research. Miss Edith Patterson, Sterling, Ill., is the donor in memory of her brother, Floyd Elroy Patterson, who died in 1928. Under the terms of the agreement between Miss Patterson, Northwestern University and the hospital, the building occupied by the Passavant Hospital will be named the Floyd Elroy Patterson Building, although the unit will continue to be known as the Passavant Hospital, it was announced. The institute will be organized as a department of the hospital with a yearly appropriation of $12,000 for treatment and research.

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University of Pennsylvania

A campaign to raise $12,500,000 by 1940, the bicentennnial anniversary of the University, is now being conducted. The specific objectives of the campaign include $3,600,000 for the permanent endowment of teaching in the under-

graduate and graduate divisions; $800,000 for teaching and research in the professional schools; $2,000,000 for University endowment; $2,000,000 for a chemistry building; $2,000,000 for the erection and endowment of a library building; $1,000,000 for fellowships and scholarships; $600,000 for the development of Valley Forge campus; and $500,000 for the University museum.

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Elizabeth Clay Howald Scholarship

The Ohio State University announces this scholarship, carrying a stipend of $3,000, which is available to either a faculty member or a graduate student from any institution of higher education in the United States who shows marked ability in some field of study and whose work promises important contributions to knowledge. Applications for this fellowship must be filed with the Dean of the Graduate School not later than March 1, 1938. The appointment will be announced on April 1.

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Knowledge vs. Credits

Last fall four new curriculum provisions were inaugurated by Columbia College.

1. Entering freshmen will begin a prescribed two-year course in the humanities. During the first year they will study the classics of philosophy, and during the second they will deal with music and the fine arts.

2. The degree requirement in languages will be met by the student in terms of proficiency instead of in terms of course credits. This means that students must pass proficiency tests rather than orthodox course examinations.

3. The required course in English composition for freshmen has been abandoned, and English composition is now to be related to the freshman's whole program. This means that papers turned in for all courses will be marked for writing effectiveness.

4. The course in contemporary civilization which has been in operation for the past fifteen years will be reduced from five hours weekly to four. This change has been necessary in order to make room for the course in the humanities.

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Association of American Colleges

The 24th annual meeting of this Association will be held in Chicago, January 20 and 21, 1938. The special topic to be discussed is "The College and Public Life." Among the speakers are: Harold L. Ickes, Secretary of the Interior, Heinrich Bruening, former chancellor of Germany, now visiting professor in Harvard University, Robert M. Hutchins, president University of Chicago, and Harold W. Dodds, president Princeton University, will speak on the subject "The Colleges and Public Service." A number of college presidents will speak on the subject of "Courses in Public Affairs." The president of the Association is James L. McConaughy, president of Wesleyan University; the secretary is Guy E. Snavely, 19 West 44th Street, New York City. Anyone who is interested in the subjects to be discussed or in general education should attend this meeting.

Book News

Muir's Bacteriological Atlas

By Dr. C. E. van Rooyen, Lecturer in Bacteriology, University of Edinburgh. 2d Ed. William Wood & Company, Baltimore. 1937. Price, $5.25.

The object of this work is to provide illustrations of bacteria; hence descriptive material has been reduced to a minimum and the student must also have recourse to a standard textbook. All illustrations, many in colors, have been drawn from microscopic slides. They are beautiful and should prove most helpful to the medical student.

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Synopsis of Genitourinary Diseases

By Dr. Austin I. Dodson, Professor of Genitourinary Surgery, Medical College of Virginia. 2d Ed. The C. V. Mosby Company, St. Louis. 1937. Price, $3.

This book stresses the etiology and pathology of disease and the acquisition of diagnostic methods. It is intended, primarily, for the medical student who has little time to devote to the specialties in medicine. The author has achieved his object well. The book can be recommended to students.

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Illustrations of Regional Anatomy

By Dr. E. B. Jamieson, Lecturer in Anatomy, University of Edinburgh. 2d Ed. Parts I-V (incl.). William Wood & Company, Baltimore. 1937. Price, $1.75-$3.50 each.

Illustrations only; no text. The illustrations are both diagrammatic and drawn directly from specimens; in black and in colors; printed only on one side of a sheet and bound in lose leaf folders. Hence, the student can make the fullest use of each illustration at any time. There are five separate sections of illustrations, each in its own cover. All black illustrations will take colored chalk so that the student may do his own coloring as an aid to memory. The illustrations cover the central nervous system; the head and neck; abdomen; pelvis and the thorax. The sections on the arm and leg were not republished. The complete set of seven sections can be purchased for $15—a worthwhile investment.

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Management of Fractures, Dislocations and Sprains

By Dr. John Albert Key, Clinical Professor of Orthopedic Surgery, Washington University School of Medicine, and Dr. H. Earle Conwell, of Birmingham, Ala. 2d Ed. The C. V. Mosby Company, St. Louis. 1937. Price, $12.50.

A working guide based on the extensive experience in this field of both authors. Profusely but well illustrated and authoritative. For any one desiring complete information in this field, this work will fill that need well.

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Short Manual of Regional Anatomy

By J. A. Keen, M.B. (Lond.), F.R.C.S. (Eng.), formerly Prosector and Demonstrator of Anatomy, King's College, London. Longmans, Green & Co., New York. 1937. Price, $2.

Prepared as an aid to the student to memorize essentials of anatomy with a minimum of effort. Simple diagrammatic figures replace many pages of description of anatomical relations. All matters of general interest are assembled in one section at the beginning in a chapter on "General Anatomy." No histology nor physiology. Free use of black face type makes for easy reference. An excellent book.

Atlas of Hematology

By Dr. Edwin E. Osgood and Clarice M. Ashworth, respectively, Assistant Professor of Medicine and Medical Illustrator, University of Oregon Medical School. J. W. Stacey, Inc., San Francisco. 1937.

Hundreds of beautiful illustrations; many informative tables; a very fine bibliography and an index which actually indexes. The authors deserve the highest commendation for their efforts to provide an authoritative, as well as beautiful book on hematology, a field which is assuming increasingly important proportions in medical practice.

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Practical Treatise on Diseases of the Skin

By Dr. Oliver S. Ormbsy, Clinical Professor of Dermatology, Rush Medical College of the University of Chicago. With revision of the histopathology and mycology by Dr. Clark W. Finnerud, Assistant Clinical Professor of Dermatology, Rush Medical College. 5th Ed. Lea & Febiger, Philadelphia. 1937. Price, $12.00.

This edition describes twenty new diseases. The descriptions of twelve others have been wholly or partly rewritten, forty-two new illustrations have been added and the entire work has been brought fully up to date. In its present form the text reflects with accuracy the advanced position of present day dermatology. Every known dermatologic condition is included and the vast amount of material is so organized that all the essential information is immediately available. The volume is particularly adequate in its consideration of syphilis and its dermatologic manifestations. The revision of the histopathology and mycology by Dr. Finnerud, supplemented by many excellent photomicrographs, provides a scientific basis for dermatological diagnosis. The book is thoroughly practical, its value is enhanced by many prescriptions and formulas. A most important feature is the introductory material covering the anatomy and physiology of the skin and the general considerations of symptomatology, etiology, pathology, diagnosis, prognosis and therapeutics. Differential diagnosis is thoroughly discussed and there are important sections on treatment with Roentgen rays, Grenz rays, radium, Finsen light and vaccines.

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The Diary of a Surgeon (John Knyveton) in the Year 1751-1752

Edited and transcribed by Ernest Gray. D. Appleton-Century Company, New York. 1937. Price, $2.50.

Interesting and entertaining. Good reading for a dull day when the spirit needs cajoling without placing too much of a strain on mental faculties. Highly recommended for every physician.

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Demonstrations of Physical Signs in Clinical Surgery

By Hamilton Bailey, F. R. C. S. (Eng.) Surgeon, Royal Northern Hospital, London. 6th Ed. William Wood & Company, Baltimore. 1937. Price, $6.50.

Describes graphically the physical signs which may be elicted and observed in the diagnosis of surgical cases, many of them common clinical tests. Clinical clerks on surgical service will find this a valuable book.

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Orthodiascopy

By Dr. Chester M. Kurtz, Assistant Professor of Medicine, University of Wisconsin Medical School. The Macmillan Company, New York. 1937. Price, $3.50.

Describes apparatus used and gives details of procedure for orthodiascopy which has great value in the diagnosis and treatment of cardiac conditions. Stress is laid on the correlation between common physical signs and orthodiascopic findings. The "premiere" in this field.

Synopsis of Obstetrics and Gynecology

By Dr. Aleck W. Bourne, Consulting Obstetric Surgeon Queen Charlotte's Hospital, London. 7th Ed. William Wood & Company, Baltimore. 1937. Price, $4.

A condensed textbook rather than a compend, making reference quick and easy; stresses salient and essential points of both subjects. Obstetrics: 34 chapters; gynecology, 14 chapters. Another valuable book for the student.

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Manual of Clinical and Laboratory Technic

By Dr. Hiram B. Weiss, Associate Professor of Medicine, University of Cincinnati College of Medicine, and Dr. Raphael Isaacs, Associate Professor of Medicine, University of Michigan Medical School. 5th Ed. W. B. Saunders Company, 1937. Price, $1.50.

A ready reference to the gross details of the most common laboratory tests; a convenient summary of certain routine forms and data used in the laboratory and clinic, and an available source of some newer tests not yet available in a textbook. Very good.

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Arteriovenous Aneurysm

By Emile Holman, M.D., Professor of Surgery, Stanford University School of Medicine. The Macmillan Company, New York. 1937. Price, $5.

A surgical monograph valuable for surgeons and graduate students in surgery.

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A Pediatrician in Search of Mental Hygiene

By Bronson Crothers, M.D., Assistant Professor of Pediatrics, Harvard Medical School. The Commonwealth Fund, New York. 1937. Price, $2.50.

What is mental hygiene? What is there in it for the pediatrician? The usual pediatric training gives the student little preparation to deal with problems of children which have mental and emotional factors. Dr. Crothers' discussion of these problems is penetrating and brilliant, with frank criticism of both pediatricians and mental hygienists.

An attempt at a reasonable exposition of the present situation is made. The question is raised whether those who spend their lives studying organic diseases, particularly as they occur in children, cannot find a way to cooperate in giving a competent type of service in the field of mental hygiene on terms which are not identical with those suggested by the usual psychiatric enthusiast.

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A Diabetic Manual

By Dr. Elliott P. Joslin, Clinical Professor of Medicine, Harvard Medical School. 6th Ed. Lea & Febiger, Philadelphia. 1937. Price, $2.

Valuable not only to the physician but also to his diabetic patient because it tells him all about his disease and helps him in cooperating with his physician. Every diabetic should have a copy of this book because complete knowledge of his disease, presented in terms he can understand, is a distinct asset. Completely rewritten.

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Textbook of Experimental Surgery

By J. Markowitz, M.B., Ph.D., Research Associate Department of Physiology, University of Toronto. William Wood & Company, Baltimore. 1937. Price, $7.

A presentation of some of the major accomplishments of experimental surgery and the demonstration in some detail of the technical procedures by which this knowledge was acquired. The author has succeeded by clarity of description, excellent illustrations and concise discussion of results of operative procedures in experimental surgery to make the reader aware of the fact that when such experiments are conducted with the same precautions relative to anesthesia and sterile technic as are employed in

surgery applied to man, experimental surgery has a function which nothing can replace. The antivivisection movement, the care and feeding of animals are also discussed. The end of the chapter bibliography is good. A good book for the student.

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Modern Dietary Treatment

By Margery Abrahams, Dietitian to St. Bartholomew's Hospital, London, and Elsie M. Widdowson, Biochemist to Ling's College Hospital, London. William Wood & Company, Baltimore. 1937. Price, $3.25.

An excellent, concise, usable text. The authors discuss, first, the general principles of dietetics; second, the various diseases in which dietary treatment is necessary and reasons for type of food employed; third, details and examples of diet suitable for patients suffering from these diseases. The variety of dishes provided makes this part specially valuable.

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Physiology for Pharmaceutical Students

By Harold H. Barbour, Ph.D., Head of the Department of Physiology, University College of Nottingham, England. William Wood & Company, Baltimore. 1937. Price, $4.50.

An outline of practical and theoretical physiology and pharmacology for pharmaceutical students; wherever possible deals with these subjects from the pharmaceutical standpoint. The only book on physiology and pharmacology meeting these specific requirements.

Surgical Anatomy of the Head and Neck

By Dr. John F. Barnhill, formerly Professor of Otolaryngology, Indiana University School of Medicine. William Wood & Company, Baltimore. 1937. Price, $20.

Designed especially for otolaryngolists, ophthalmologists, oral surgeons, dentists, general surgeons, and all interested in the surgery of the intricate regions of the head and neck. Intended to be helpful in diagnosis as well as in treatment. There are 450 illustrations, many in colors, made mostly by the author whose long experience as a teacher and investigator is presented in a most interesting and informative manner. A monumental work which not only reflects great credit on its author but which will prove to be highly useful to every graduate student in these related fields.

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Wheel and Jack's Handbook of Medicine

Revised by Dr. John Henderson, Professor of Medicine, St. Mungo's College, Glasgow, Scotland. 10th Ed. William Wood & Company, Baltimore. 1937. Price, $4.

Forty-three years old; completely revised; bristling with useful information; concise; splendid for quick reference. A book which every medical student will find to be a treasure at a time when textbooks are becoming larger; harder to handle; costly; too voluminous for the student. Fills a real need.